

EO 4 (1949) Department.

718. SERIES.

G.O. NO. 3442- EDR

3442

Dated

10/11/49

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[Despatch Abstract.]

M.F.S. - Dr. T.R. Govindachari, overseas scholar -
Appd. as Hdd. Prof. of Chemistry temporarily.

NO.F.3-11/S.3/45-ODIV.
Government of India,
MINISTRY OF EDUCATION,

New Delhi 3, the 2nd JUNE, 1948.

From

Dr. Tara Chand, M.A., D.Phil.,
Secretary to the Govt. of India.

To

The Secretary to the Govt. of Madras,
Deptt. of Education and Public Health,
MADRAS.

SUBJECT: SCHOLARSHIPS FOR ADVANCED STUDIES OVERSEAS -
EMPLOYMENT FORMS IN RESPECT OF PROVINCIAL
GOVTS. SPONSORED SCHOLARS IN THE U.S.A.

Sir,

I am directed to forward herewith, in duplicate,
for information and necessary action of the Provincial
Govt. the Employment Form in respect of Dr. T.R. Govinda-
chari the 1945-46 Govt. of Madras sponsored scholar
received through the Indian Embassy, Washington.

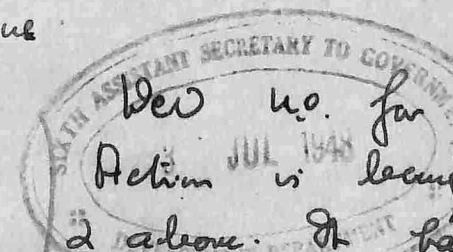
2. The Govt. of Madras may kindly refer to this
Ministry letter of even number, dated the 29th April, 1948,
and subsequent reminders dated the 6th May, 1948 and
24th May, 1948 and expedite their decision regarding the
proposed extension in Dr. Govindachari's scholarship period

I have the honour to
Yours faithfully,

(K.P. LUKOSE)
for Secretary.

Edn. no. 47010/45-162

20 6 48



Dev. no. for necessary action.
Action is being taken separately with ref to para
2 above. It has been decided that extension
in the period of scholarship is not necessary
and that the candidate may return after the
normal period i.e. Sep 48.

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GOVERNMENT OF INDIA
MINISTRY OF EDUCATION

Overseas Scholarships (Provincial) - Application for Employment of Scholars

N.B. - This application must be submitted (in quadruplicate) at least FOUR months before a scholar's stay abroad is to come to an end.

1. Full Name (in block letters)	TUTICORIN RAGHAVACHARI GOVINDACHARI
2. Date of Birth	30th July 1915
3. Father's Name	T.G. Raghavachari
4. Full address in India to which correspondence should be addressed to the scholar on his return	25, Thanikachalam Chetty Road, Thyagarayanagar, Madras 17.
5. (i) Subject of Scholarship (ii) Exact Branch	Organic Chemistry Chemistry of Dyestuffs.
6. Year of Selection	August 1945
7. Name of Sponsoring Province	Madras
8. Date of commencement of scholarship (Date of arrival in the country of study)	August 25th 1946
9. Date on which the course of his studies is due to terminate	August 25th 1948. I have applied for extension of stay for another year.
10. Approximate date of return in India	This is dependent on the decision of the Government on my application for extension.

11. Qualifications prior to selection

	Name of College, Institute or University attended	Examination Passed	Division obtained	Year	Subjects Taken
(a) Academic					
(i) Degree & post-graduate examinations only	Presidency College Madras University	B.Sc.	1st	1934	Chemistry (Main) Mathematics and Physics
	" " "	M.Sc.		1937	Organic Chemistry
(ii) Post-graduate training or research	" " "	Ph.D.		1946	Organic Chemistry

(iii) Published Works (give names of the papers published, if any).

Please see Annexure A

	Institution, Co., or Office where trained or employed	Post or capacity in which employed	Pay if any drawn (with scale)	Period
(b) Practical training and industrial or professional experience gained (including apprenticeship)	Employed on a scheme of the Board of Scientific and Industrial Research conducted at the Presidency College Madras.	Research Assistant	Rs.300/ plus Rs.53(d.a.) 250/25/300	July 1941 to July 1946

(c) Additional qualifications not covered in (a) and (b) above
Associate of the Royal Institute of Chemistry
Fellow of the Chemical Society and Society of Chemical Industry of Great Britain

(d) Post held at the time of selection:

(a) Name of the Post
Research Assistant, Board of Scientific and Industrial Research, Government of India.

(b) Pay last drawn and the scale of pay
Rs.300/ plus Rs.53. Rs.250/25/300

(c) Office or Government where employed
Presidency College, Madras

(d) Did you resign, or go on study leave terms or on extraordinary leave?
Resigned

12. Overseas Qualifications Acquired:

(a) Name of the country of study
U.S.A.

(b) Details of the course of study covered (up-to-date):

	Institution or University, etc., attended	Duration		Subject With Exact Branch	Some details of the course (if the space is not sufficient, attach a separate sheet)	Degree, Diploma or Certificate if any, obtained
		From	To			
(1) Academic	University of Illinois	Sep. 1946	Date	Organic Chemistry	Please see Annexure B	Working as a post-doctoral scholar

(ii) Practical Training

(iii) Educational visits and study tours

Please see Annexure C

(iv) Any papers published? Please give details or attach copies

Yes
Reprint Attached

13. (i) Do you have any suggestions about your employment?

I should like to have a teaching post with facilities for research

(ii) Would you prefer a

(a) Administrative

(b) Technical or

(c) Teaching Post?

Would prefer a teaching post

14. Testimonials attached (Attach at least 2 testimonials from Professors or Supervisors under whom you worked during your studies overseas and give their names and addresses)

Professor Roger Adams, Head, of the Department of Chemistry, University of Illinois, Urbana, Illinois.

Professor Carl S. Marvel, Professor of Organic Chemistry, University of Illinois, Urbana, Illinois.

T.R. Garindachari
Signature of the Applicant

Date 16th April 1948

[P.T.O.]

15 Tutor's Remarks:

Dr. Govindachari's synthesis of 2,5-dihydroxypyridine was a vital factor in the solution of the structure of leucanol. This work has been published. His researches now pertain to the elucidation of the confusion in the field of Senecio alkaloids. He has demonstrated that many of the alkaloids reported as entities are actually mixtures. One or possibly two of the same individual alkaloids are common to each product. The structure of these pure substances is now under investigation.

This student has a brilliant record. He is adaptable, earnest and enthusiastic about his work and will undoubtedly become an independent investigator of note.

Roger Adams

16. Forwarding Report by the Indian Embassy or H.C.'s Office concerned on the Scholar's work and general conduct (if necessary any confidential report may be sent separately.)

*Strongly recommended for
a suitable work. Conduct
Satisfactory.
A. W. Higgins
3/5/48*

Signature of the
forwarding authority

Date

N.B. Separate sheets to be attached in case space in any column is found insufficient. Please denote carefully.

April 12, 1948

TO WHOM IT MAY CONCERN:

Dr. T. R. Govindachari has been associated with the Chemistry Department of the University of Illinois since September, 1946. During this period he has demonstrated his ability in organic chemistry. His research work has been of the highest quality and throughout he has manifested originality, ingenuity, and industriousness. The results he has attained are an important contribution to the field of organic chemistry.

In addition to these technical qualifications he has been popular with staff and students. He is a man with breadth of learning and a modesty which is a superb asset to a man of ability. I do not hesitate to recommend him unreservedly for either a university or industrial post.

Sincerely yours,

Roger Adams
Roger Adams
Head - Chemistry Department

RA:wm

6 7
April 14, 1948

TO WHOM IT MAY CONCERN:

Dr. T. R. Govindachari has been doing research in the Department of Chemistry of the University of Illinois since September, 1946. He has demonstrated a high order of originality and unusual laboratory skill in the field of organic chemistry. He is very popular with our students and staff and has their complete respect as a colleague. I am very happy to recommend him as a man well qualified for a university or industrial post where high personal and technical qualities are needed.

Carl S. Marvel
Carl S. Marvel
Professor of Organic Chemistry

CSM:MCH

1. Untersuchungen in der Reihe der Isochinolin, I Teil,
Dey and Govindachari, Arch. Pharm. 1937, 275, 383
2. Untersuchungen in der Reihe der Isochinolin, III Teil,
Dey and Govindachari, Arch. Pharm. 1939, 277, 177
3. Studies in the Isoquinoline Series, Part VIII,
Dey and Govindachari, Proc. Nat. Inst. Sci. 1940, 6, 219
4. 1-Cyclohexyl nor hydrastinine and derivatives.
Dey and Govindachari, Current Science, 1944, 13, 203
5. Synthesis of Anolobine O-methyl ether
Govindachari, Current Science, 1941, 10, 76
6. The Nitration of Phenol
Dey and Govindachari and Govindarajan, J. Sci. Ind. Res.
1944, 2, 89
7. The Nitration of Chlorobenzene
Dey, Govindachari and Govindarajan, *ibid.*, 1944, 3, 95
8. Preparation of Ortho nitro anisole
Dey, Govindachari and Rajagopalan, *ibid.*, 1945, 3, 338
9. Constitution of Anolobine
Govindachari, Current Science, 1942, 11, 238
10. Electrolytic Reduction of Nitro Compounds:
Dey, Govindachari and Rajagopalan
Part I, J. Sci. Ind. Res., 4, 559 (1946)
11. Part II, *ibid.*, 4, 569 (1946)
12. Part III, *ibid.*, 4, 574 (1946)
13. Part IV, *ibid.*, 4, 637 (1946)
14. Part V, *ibid.*, 4, 643 (1946)
15. Part VI, *ibid.*, 4, 645 (1946)
16. Part VII, *ibid.*, 5B, 75 (1946)
17. Part VIII, *ibid.*, 5B, 77 (1946)
18. Conversion of Nitrochlorobenzenes to the anisoles and phenetoles
Dey, Govindachari and Udupa
Part I, *ibid.*, 4, 369 (1945)
19. Part II, *ibid.*, 5B, 25 (1946)
20. Part III, *ibid.*, 5B, 37 (1946)

21. Elimination of Nitro group in the diazotisation of 2,5-dichloro 4-nitro aniline.
Dey, Govindachari and Rajagopalan, Current Science, 15, 161 (1946)
22. The Structure of Leucenol Part III.
Roger Adams and Govindachari, J. Am. Chem. Soc., 69, 1806 (1947)

Work Carried out at the University of Illinois.

1. Synthesis of Aromatic aldehydes.

Many aromatic aldehydes are important as intermediates in the dye industry. A survey was made of the little known but very promising method for introduction of an aldehyde group by means of N-methyl formanilide. The reaction was studied with anisole and chlorobenzene.

2. Synthesis of dyes containing the 2-pyridone nucleus.

It was postulated that the high solubility of 2-pyridone and its derivatives in water might confer a corresponding high solubility on dyes containing this nucleus. Apart from N-phenyl 2-pyridone, no N-aryl substituted derivatives of 2-pyridone have been reported. The compounds, N-para nitrophenyl, N-para nitrophenyl-3-bromo, and N-para nitrophenyl-3,5-dibromo-2-pyridone were synthesized for the first time. The corresponding amino compounds were prepared by reduction of these nitro compounds. p-Aminophenyl piperidone was also made. By diazotisation and coupling of the amines to N-phenyl J acid, N-acetyl J acid, p-cresol and p-chloro phenol, sixteen new dyes resulted and their suitability for synthetic fibers like rayon and nylon was determined in the laboratories of the duPont de Nemours Company at Wilmington. While most of the dyes showed no improvement over the available commercial dyes, those derived from N-p-amino phenyl piperidone and N-p-amino phenyl-3,5-dibromo-2-pyridone are worthy of further investigation. A publication embodying these results will be prepared in the near future.

3. Synthesis of 2,5-dihydroxy pyridine.

By the pyrolysis of leucanol, an alkaloid obtained from Leucena glaucum benth., a substance had been obtained which was reported to be

3,5-dihydroxy pyridine. This compound had never been synthesized and previous attempts to do so in the University of Illinois Laboratories had failed. It is the only one of the six isomeric dihydroxypyridines not described in the literature. A method was discovered by which it could be produced, thus contributing valuable evidence concerning the structure of leucenol. The results were published in the Journal of the American Chemical Society, 69, 1806 (1947).

4. Structure of Senecio alkaloids.

Senecio, the largest genus of the Compositae family, comprises over a thousand species and most of these contain alkaloids. These plants are indigenous to most countries of the world and when consumed by cattle or horses produce liver cirrhosis due to the alkaloids present. Much work has been done in several leading laboratories of the world on the isolation of these alkaloids. As a result of pioneering work done at the University of Illinois, extremely valuable information has been gained on their nature and the structure of the basic portion, common to many of them, has been clarified. The structures of the acidic portions of the molecules are still to be determined.

One great difficulty in the investigations in this field has been the adequate purification of these alkaloids to a single entity. The crystalline material extracted from any one plant is usually a mixture of different compounds of closely similar physical properties which cannot be separated completely by ordinary means. I have been able to develop a chromatographic system for purification of longilobine and douglasine and intend to extend the procedure to several other of the Senecio alkaloids. It has been demonstrated that many of these alkaloids are mixtures in varying proportions of two main constituents. Each of

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These constituents have been isolated in pure state and characterized by analysis, hydrogenolysis and hydrolysis. The techniques now in hand offer a method for the clarification of an extensively studied alkaloid field in which confusion has existed. Sound degradation studies are now made possible and are under way to determine the complete structures.

11 (1) 17

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13 (3) 21

[Reprinted from the Journal of the American Chemical Society, 69, 1806 (1947).]

The Structure of Leucenol. III. Synthesis of 2,5-Dihydroxypyridine (5-Hydroxy-2-pyridone)

By Roger Adams and T. R. Govindachari

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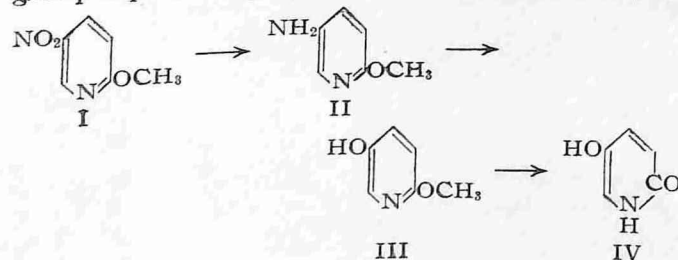
[Reprinted from the Journal of the American Chemical Society, 69, 1806 (1947).]

[CONTRIBUTION FROM NOYES CHEMICAL LABORATORY, UNIVERSITY OF ILLINOIS]

The Structure of Leucenol. III. Synthesis of 2,5-Dihydroxypyridine (5-Hydroxy-2-pyridone)¹

BY ROGER ADAMS AND T. R. GOVINDACHARI

By the pyrolysis of leucenol, a dihydroxypyridine (hydroxypyridone) was isolated which was assumed to be the unknown 5-hydroxy-2-pyridone because its properties did not conform to those described in the literature for any of the five known isomers. In this Laboratory and in that of Wibaut² previous attempts to prepare this compound have failed. A successful synthesis of 5-hydroxy-2-pyridone has now been realized. It is a stable compound resembling the other hydroxypyridones. 2-Methoxy-5-nitropyridine (I) was reduced to the corresponding amino compound (II). This was diazotized and the amino group replaced by hydroxyl to yield 2-methoxy-5-



(1) For previous paper see Adams and Jones, *THIS JOURNAL*, 69, 1803 (1947); Paper V, *ibid.*, 69, 1810 (1947).

(2) Bickel and Wibaut, *Rec. trav. chim.*, 65, 65 (1946).

hydroxypyridine (III) which hydrolyzed readily in the presence of hydrobromic acid to give 2,5-dihydroxypyridine (5-hydroxy-2-pyridone) (IV). The yields in all steps except the replacement of the amino group by hydroxyl were very satisfactory. In general diazotization of a 3-amino-pyridine gives low yields³ but in this case only 3-4% yield resulted. No attempts to improve this preparation were made since the amount of 2-methoxy-5-hydroxypyridine obtained was adequate for hydrolysis and characterization of the 5-hydroxy-2-pyridone. The 2-methoxy-5-amino-pyridine is reported in the literature both as a crystalline solid,⁴ m. p. 135-136°, and as an oil extremely susceptible to oxidation.⁵ In this investigation it proved to be a colorless oil easily obtainable in quantitative yields.

The pyridone (IV) begins turning dark at 215° and decomposes without melting at 240-250° (cor.) and a mixture with the leucenol pyrolysate (m. p. 242-244° with decomposition), melts at 210° with decomposition. The synthetic product gives a pinkish red color with ferric chloride, un-

(3) Schiekh, Binz and Schulz, *Ber.*, 69, 2600 (1936); Parker and Shive, *THIS JOURNAL*, 69, 63 (1947).

(4) Rath, *Ann.*, 484, 52 (1930).

(5) Magidson and Menschikoff, *Ber.*, 58, 113 (1925).

July, 1947

SYNTHESIS OF 2,5-DIHYDROXYPYRIDINE (5-HYDROXY-2-PYRIDONE)

1807

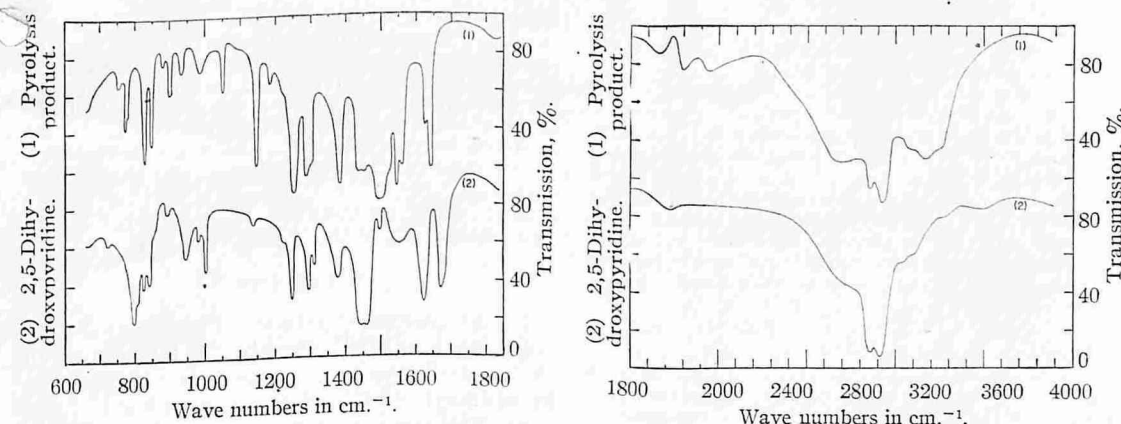
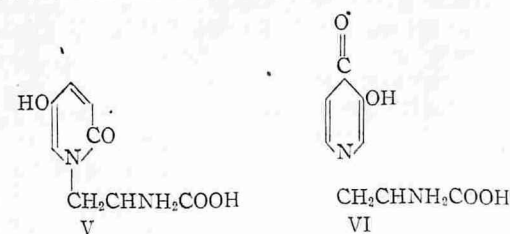


Fig. 1.—Both samples were dried in Abderhalden. To obtain the spectra each sample was ground up in Nujol and placed between two rocksalt plates to reduce the scattering caused by solid particles. The only Nujol absorption bands are the C-H stretching frequencies at 2920 and 2850 cm^{-1} and the CH_2 and CH_3 deformational frequencies at 1460 and 1375 cm^{-1} .

changed on addition of more reagent whereas the pyrolysate gives first a red which changes to a purple color on addition of more reagent (incorrectly reported in a previous paper⁶ as giving directly a purple color). It gives a blue color with Folin's reagent. The infrared absorption spectrum of IV differs from that of the pyrolysate as shown in Fig. 1. It must be concluded therefore that the postulated structure of the pyrolysate as 5-hydroxy-2-pyridone is incorrect.

This discovery indicates that the previously proposed structure (V) for leucenol is faulty. Of the two suggested by Wibaut,⁷ that with the side chain attached to nitrogen (VI) is probably the right one.

The pyrolysate, on the basis of formula VI, must be 3-hydroxy-4-pyridone, but if this is so the properties now assigned to 3-hydroxy-4-pyridone in the literature must be in error.



The authors are indebted to Mrs. Agatha R. Johnson for the infrared absorption spectra determinations.

Experimental

2-Chloro-5-nitropyridine.—This compound was prepared by the method described by Caldwell and Kornfeld.⁸

2-Methoxy-5-nitropyridine.—A solution of 10 g. of 2-chloro-5-nitropyridine in 100 ml. of absolute methanol was added to a solution of 1.75 g. of sodium in 50 ml. of absolute methanol with good shaking. The solution was

(6) Adams, Cristol, Anderson and Albert, *THIS JOURNAL*, 67, 89 (1945).

(7) Wibaut, *Helv. Chim. Acta*, 29, 1669 (1946).

(8) Caldwell and Kornfeld, *THIS JOURNAL*, 64, 1695 (1942).

refluxed for ten minutes and the methanol was removed by distillation. The residue was steam-distilled, when 2-methoxy-5-nitropyridine passed over as colorless crystals solidifying in the condenser. The steam-distillate was cooled in ice and the material filtered, yield 7.2 g. (74.5%). It was purified by crystallization from dilute ethanol; colorless prisms, m. p. 109° (cor.).

There are two previously described syntheses which give relatively poor yields; from the silver salt of 5-nitro-2-pyridone⁴ (44% yield), m. p. 108-109°, and from 5-nitro-2-iodopyridine⁵ (33.8% yield), m. p. 110°.

2-Methoxy-5-aminopyridine.—A solution of 5 g. of 2-methoxy-5-nitropyridine in 50 ml. of absolute ethanol was reduced with hydrogen in the presence of 0.1 g. of platinum oxide catalyst at 2-3 atm. pressure. The reduction stopped upon absorption of three moles of hydrogen. The colorless solution was filtered from the catalyst, keeping an atmosphere of nitrogen over the funnel and the filtrate was distilled *in vacuo* to remove the ethanol completely. A light brown oil was left behind. On distillation *in vacuo*, this passed over as a colorless oil, b. p. 125-126° at 10 mm.; yield, 3.9 g. (95%). It had a strong basic odor and had a tendency to get dark by exposure to the atmosphere.

By addition of one mole of picric acid to the ethanolic solution of the amine, both the mono and dipicrates were formed, the dipicrate separating out first and the monopicrate on concentration of the filtrate. Both the picrates were recrystallized from ethanol. The dipicrate formed yellow crystals, m. p. 128°, and the monopicrate, yellow crystals, m. p. 160°.

Anal. Monopicrate: Calcd. for $\text{C}_{12}\text{H}_{11}\text{N}_5\text{O}_8$: C, 40.9; H, 3.15; N, 19.9. Found: C, 41.1; H, 3.16; N, 19.56.

Anal. Dipicrate: Calcd. for $\text{C}_{18}\text{H}_{14}\text{N}_6\text{O}_{13}$: C, 37.1; H, 2.43; N, 19.2. Found: C, 37.34; H, 2.37; N, 19.35.

2-Methoxy-5-hydroxypyridine.—The crude 2-methoxy-5-aminopyridine obtained by reduction of 10 g. of nitro compound was dissolved in a mixture of 11 ml. of concentrated sulfuric acid and 80 ml. of water. The solution was cooled to below -5° and treated dropwise with good stirring with a solution of 5 g. of sodium nitrite in 20 ml. of water, keeping the temperature below -5°. After the addition, the stirring was continued for thirty minutes at the temperature of diazotization. The solution was then poured into 200 g. of ice and the excess nitrous acid removed by addition of the necessary amount of urea and the mineral acid neutralized (congo red paper) by addition of sodium acetate. The ice-cold solution was then dropped into a solution of 20 g. of copper sulfate in 50 g. of water with vigorous stirring, the temperature being kept at 50°. The temperature was then raised to

80° and the heating continued until the evolution of nitrogen ceased. A considerable amount of brownish resinous material separated at this stage.

The mixture was repeatedly extracted with ether (500 ml.). The ether solution was treated with aqueous sodium bicarbonate to neutralize the acetic acid. The ether extract was dried over anhydrous magnesium sulfate and the ether distilled. The reddish oily residue was distilled at 1 mm. and 0.35 g. of a light brown semi-solid was obtained; the rest was non-distillable. The semi-solid material was subjected to vacuum sublimation and 0.2 g. of a slightly waxy solid resulted. On recrystallization from toluene, 100 mg. of pure 2-methoxy-5-hydroxypyridine was obtained; m. p. 81°.

Anal. Calcd. for $C_6H_7O_2N$: C, 57.6; H, 5.64; N, 11.2. Found: C, 57.79; H, 5.66; N, 11.06.

2,5-Dihydroxypyridine (5-Hydroxy-2-pyridone).—A solution of 90 mg. of 2-methoxy-5-hydroxypyridine in 1 ml. of hydrobromic acid (sp. gr. 1.5) in an atmosphere of nitrogen was refluxed for four hours. The hydrobromic acid was then removed *in vacuo* and this residue carefully neutralized with dilute aqueous sodium carbonate keeping the end-point slightly on the acidic side. The solution was then evaporated to dryness over a steam-bath in a

current of nitrogen. The residue was sublimed at 1 mm. pressure. The sublimation started at 150° and the temperature was gradually raised to 180° during three hours. A pale yellow solid was obtained, weighing 70 mg. On recrystallization from ethanol, it was obtained as clusters of thin colorless needles which darkened at 215° and decomposed between 240–250°. Additional recrystallizations gave product showing the same characteristics upon heating.

Anal. Calcd. for $C_5H_5O_2N$: C, 54.01; H, 4.54; N, 12.6. Found: C, 54.10; H, 4.46; N, 12.41.

Summary

1. 2,5-Dihydroxypyridine (5-hydroxy-2-pyridone) has been synthesized by the replacement of the amino group in 2-methoxy-5-aminopyridine by hydroxyl and hydrolysis of the product.

2. This compound was not identical with the dihydroxypyridine obtained by pyrolysis of leucenol.

URBANA, ILLINOIS

RECEIVED MARCH 7, 1947

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Memo No. 72893 D.I/48.1 dated 23-7-48. (6)

Education - Overseas scholarships - Scholars selected in the year 1945-46 - 1946-47 & Employment of their return from abroad.

A list of scholars selected for overseas study during 1945-46 and 1946-47 with information regarding their subject of study, approximate date of return etc. is enclosed herewith. It is the intention of Govt. that as many of these Scholars as possible should be absorbed in Govt. Service, or other similar establishments, as soon as they come back. Though some posts exist in which they can suitably be appointed, the rules and regulations require that the Public Service Commission should be consulted before appointing them to the posts. To obviate this difficulty, orders have been recently issued G.O. 1685 Education dated 2-7-48, dispensing with the necessity to consult the Commission, in appointing the overseas scholars. The D.A./D.I. & C. is requested to state how many of the scholars in the enclosed list can be absorbed in his department soon after their return. He should specify the names of the scholars that can be absorbed and the posts that can be offered to them.

A very urgent reply is requested.

CPG
23-7-48.

Copy of letter No. 2344 EI/48 dated 6-9-48 from the D.I. & C. to the Secretary to Govt., Devt. Deptt.

Sub: Education - Overseas Scholarships - Scholars selected in the year 1945-46 and 1946-47.

Ref: Govt. Memo.
Govt. Memo. No. 72893 D.I/48-1 Development dated 23-7-48.
G.O. No. 1685, E & P.H. dated 2-7-48.

I have examined the cases of the scholars referred to me by Government from time to time for employment in this Department and also of those mentioned in the list sent with Government Memorandum No. 72893 DI/48-1 dated 23-7-48. Only the following scholars can be absorbed in Gazetted posts in the Department temporarily, pending the approval of the ad hoc rules for the posts of Heads of Sections in the Polytechnics.

The names of posts to which they can be appointed are indicated against them. In view of the overall examination of the scholars, the present recommendations are not quite in accordance with those made previously in respect of some of the candidates.

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of p14

Stet
As it has been decided
by the Govt. that extension
in the period of Sir Govinda-
Chari's scholarship is not
necessary, he is due to
return to this country in
September 48
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at p14 & up
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The DICE may be requested to see
whether any suitable appointment can
be offered to the scholar, the way
to be decided
7.8.48

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(1)

Dev. Dept

Memo No 73760 D1/48.1 d. 7.48

Sub: Scholarships - Advanced studies
overseas in respect of Mr.
T.R. Govindachari - Employ-
ment on completion of
studies

Ref: From the Govt of India, Ministry
of Education letter no 73-11/3-3/45
ODIV of 24-6-48.

Mr. T. R. Govindachari is a private
candidate who was awarded
a scholarship ^{in 1945} for advanced
studies in 'Organic chemistry'
~~is due to arrive from abroad~~
~~in Sept 1948 after completing his~~
~~overseas studies.~~ A copy of the
Govt of India's letter cited above
together with a copy of ^{its} ~~the~~ enclosure
is forwarded to the DICE ^{The D. S. & G.}
requested to see ~~whether~~ whether
any suitable appointment
could be offered ^{to the scholar} in his Dept and
if it is not possible, whether a
suitable appointment can be
secured for the scholar under
a private institution and
intimate the result to the Govt
at a very early date.

CPS
7.7.48

The DICE may be requested to see
whether any suitable appointment can
be offered to the scholar, the way

memo overleaf is for approval

W
6/7/48

CP

7.7.48

W
26.8.48

19 Reminded 33

Dev. Dept

Memo NO 73760 DI/48 -2 d 26 8. 48

Sub: Scholarships - Advanced Studies
overseas in respect of Mr T. R
Govindachari. Employment on
Completion of Studies

Ref: Govt Memo NO 73760 DI/48.1 d 7.7.48
and reminder thereon of 8.8.48.

The D.I.C. is requested to send
urgently his reply to the Govt memo
cited above.

W
25.8.48

16/8
26.8.48

To The D.I.C.

R 10.9.48

20 (19) 35
No. F.3-11/S.3/45-S.2.
Government of India,
Ministry of Education,
New Delhi, the April, 1949.

From

Dr. Tara Chand, M.A., D.Phil. (Oxon).,
Secretary, to the Government of India.

To

The Secretary, to the
Government of Madras,
Education and Public Health Department,
M_A_D_R_A_S.

Subject: Application from Dr. T.R. Govindachari, 1945-46
Madras Government sponsored scholar to the Federal
Public Service Commission for the post of Senior
Scientist (Chemistry) in the Defence Science
Organisation, Ministry of Defence.

Sir,

I am directed to forward herewith, an application
in original, from Dr. T.R. Govindachari for the post
mentioned above, for onward transmission to the Federal
Public Service Commission, if the Provincial Government
so desire.

Yours faithfully,

D. Madhavi

(D. MADHAVI)
for Secretary.

Subject. For Asst. Secretary.

For Asst. Secretary.

may be expected.

(2) the date by which a reply
may be expected.

(1) the stage at which the
matter now is; and

and to request that this reminder
may be returned within
with information as to

I am directed to invite atten-
tion to
No.

The

Reminder
Devt. Deptt.
Reminder
Devt. Deptt.
Development Deptt.

37
21
UNIVERSITY OF ILLINOIS
DEPARTMENT OF CHEMISTRY
URBANA

214 B
THE WILLIAM ALBERT NOYES LABORATORY

22nd February 1949

The Federal Public Service Commission,
Government of India,

New Delhi.

Through the Education Department, Embassy of India, Washington D.C.

Sirs,

I offer myself as a candidate for the post of Senior Scientist (Chemistry) in the Defence Science Organisation, Ministry of Defence. I am attaching a brief description of my educational career and scientific training. I request that reference may be made to Prof.B.B.Dey, Director, Biochemical Laboratories, University of Madras and to Prof.Roger Adams, Head, Department of Chemistry, University of Illinois about my ability and character.

I am at present employed as a post-doctoral research assistant in the Chemistry Dept. of the University of Illinois and will be available for service in India, with the permission of the Govt. of Madras after June 1949.

Yours faithfully,

T.R. Govindachari

38

22 39 78
(27)

Name: T.R.Govindachari

Date of Birth: 30th July 1915

Degrees obtained: B.Sc.(1934); M.Sc.(1937); Ph.D.(1946) all from the University of Madras.

Positions held: Research scholar, University of Madras from 1939-1941. Senior research assistant, Board of Scientific and Industrial Research, working under the direction of Prof.B.B.Dey at the Presidency College, Madras from 1941 to 1946.

Selected under the Overseas Training Scheme in 1945. Joined the University of Illinois as a visiting post-doctoral research fellow in September 1946. Appointed as a post-doctoral research assistant in the Chemistry Dept., University of Illinois in September 1948 ^{on} the termination of the Govt. of Madras scholarship.

Research Experience:

Over-all research experience of nearly fifteen years. The main fields of work extend over synthetic organic chemistry relating to nitrogen heterocycles, chemistry of natural products, chemistry of dyestuff intermediates and dyestuffs, and electro-chemical production of dye-stuff intermediates. A list of publications is attached.

Membership in Scientific Societies:

Fellow of the Chemical Society and Society of Chemical Industry, Great Britain.

Associate of the Royal Institute of Chemistry, Great Britain.

Member of the American Chemical Society, U.S.A.

Member, Sigma Xi, National Scientific Fraternity and of Phi Lambda Upsilon, National Chemistry Fraternity, U.S.A.

23
4
April 12 1948.

(23)

To Whom It May Concern:

Dr. T. R. Govindachari has been associated with the Chemistry Department of the University of Illinois since September 1946. During this period he has demonstrated his ability in organic chemistry. His research work has been of the highest quality and throughout he has manifested originality, ingenuity and industriousness. The results he has obtained are an important contribution to the field of organic chemistry.

In addition to these technical qualifications he has been popular with staff and students. He is a man with breadth of learning and modesty which is a superb asset to a man of ability. I do not hesitate to recommend him unreservedly for either a university or industrial post.

Sincerely yours,

(Sd.) Roger Adams

Head, Department of Chemistry,
University of Illinois, Urbana, Ill.

42
B.B.Dey, D.Sc., F.R.I.C.

43
Presidency College, Madras.
7th March 1946

(N) 24
I have much pleasure in giving this certificate to Mr. T. R. Govindachari, M.Sc., who has been associated with me for the past twelve years, first as a student and then as a colleague in research.

Mr. Govindachari joined the College in 1932 and took his B.Sc. degree of the Madras University in 1934 with a first class in chemistry. In July of that year, he commenced researches in Organic chemistry under me and he was awarded the M.Sc. degree in 1937 by the University of Madras on the merit of his thesis on 'Studies in the Isoquinoline Series'. The thesis was highly commended by the Board of Examiners constituted in England, consisting of Professors Robinson, Heilbron and Simonsen. Mr. Govindachari continued his researches under me and was awarded a research studentship by the University of Madras for two years, 1939-1941. During this period, he succeeded in synthesising a molecule having the constitution assigned to the alkaloid Anolobine by the Canadian chemist Manske.

Since July 1941, Mr. Govindachari has been engaged as an assistant under the scheme of research on the electrolytic production of benzidine and other dye intermediates sanctioned by the Board of Scientific and Industrial Research, Government of India. This scheme has now been brought to a successful conclusion and a second scheme also subsidised by the B.S.I.R. on the manufacture of Direct Cotton Colours has been undertaken since September 1943.

In his studies both in the field of pure research and of industrial applications e.g. in arriving at the best experimental conditions, for the manufacture of benzidine, tolidine etc., first on a laboratory scale and then on a pilot plant scale, Mr. Govindachari

has given evidence of a rare skill, capacity of organisation, ability to overcome engineering and other problems. Many of the plants required for the work were designed by him and executed by local engineering firms, according to those designs. ~~It would be~~ It would be no exaggeration to say that it was mainly through his enthusiasm, industry, resolution and skill that we have been able to fit up a large room in the College Chemistry department with equipment suitable for a Chemical Technological annexe.

Mr. Govindachari has a very agreeable personality and has a remarkable capacity for guiding and enthusing those who work with him.

Sd. B.B.Dey

1. Untersuchungen in der Reihe der Isochinolin: I Teil
Dey and Govindachari, Arch.Pharm. 275, 383 (1937)
2. Untersuchungen in der Reihe der Isochinolin: III Teil
Dey and Govindachari, Arch.Pharm., 277, 177 (1939)
3. Studies in the Isoquinoline Series: Part VIII,
Dey and Govindachari, Proc.Nat.Inst.Sci. 6, 219, (1940)
4. 1-cyclohexyl norhydrastinine and derivatives
Dey and Govindachari, Current Science, 13, 203 (1944)
5. Synthesis of Anolobine O-methyl ether
Govindachari, Current Science, 10, 76 (1941)
6. The Nitration of Phenol
Dey, Govindachari and Govindarajan, J.Sci.Ind. Res., 2, 89 (1944)
7. The Nitration of Chlorobenzene,
Dey, Govindachari and Govindarajan, 3, 95 (1944)
8. Preparation of Orto Nitro Anisole
Dey, Govindachari and Rajagopalan, J.Sci.Ind. Res., 3, 338 (1945)
9. Constitution of Anolobine
Govindachari, Current Science, 11, 238 (1942)
10. Electrolytic Reduction of Nitro Compounds:
Dey, Govindachari and Rajagopalan :
Part I, J.Sci.Ind. Res., 4, 559 (1946)
11. Part II, ibid., 4, 569 (1946)
12. Part III, ibid., 4, 574 (1946)
13. Part IV, ibid., 4, 637 (1946)
14. Part V, ibid., 4, 642 (1946)
15. Part VI, ibid., 4, 645 (1946)
16. Part VII, ibid., 5B, 75 (1946)
17. Part VIII, ibid., 5B, 77 (1946)
18. Conversion of Nitrochlorobenzenes to Anisoles and Phenetoles:
Dey, Govindachari and Udupa:
Part I, J.Sci.Ind., 4, 369 (1945)
19. Part II, ibid., 5B, 25 (1946)
20. Part III. ibid., 5b, 37 (1946)

27 (56)

21. The Structure of Leucenol
Adams and Govindachari, J.Amer.Chem.Soc., 69, 1806 (1947)
22. Senecio Alkaloids: α - and β - Longilobine from Senecio Longilobus
Adams and Govindachari, Experientia, Karrer Festschrift (In press)
23. Senecio Alkaloids: α - and β -Longilobine from Senecio Longilobus
Adams and Govindachari, J.Amer.Chem.Soc.(In press)
24. Senecio Alkaloids: The Isolation of Senecionine from Senecio Cineraria and some observations on the structure of Senecionine
Adams and Govindachari, J.Amer.Chem.Soc.(In press)
25. The Bischler Napieralsky Reaction
Whaley and Govindachari, Organic Reactions, Editor, Roger Adams, (Unpublished)
26. The Pictet Spengler Synthesis of Isoquinolines and Related Compounds
Whaley and Govindachari, Organic Reactions, Editor, Roger Adams, (Unpublished)

Nos. 25 and 26 are contributions to the series of publications entitled 'Organic Reactions' of which the Chief Editor is Professor Roger Adams of the University of Illinois. The contributions have been approved by the Chief Editor and are now with the other editors of Organic Reactions. ~~The~~ It is expected that they will appear in Vol.VI of Organic Reactions.

In conjunction with Prof.B.B.Dey, I am a joint holder of several Indian patents , relating to the production of dyestuff intermediates.

B.B. DEY, D.Sc. (Lond.) F.R.I.C.
Director of Public Instruction (Retd.)
Director, Univ.
Biochemical Labs.

77, High Road,
San Thome, Mylapore,
19th May, 1949.

Dear ~~Mr.~~ Mr. Shetty,

I ~~have~~ ^{am} the honour to ~~enclose~~ enclosing
herewith a copy of the letter which I have sent to
Mr. D.S. Reddy, the Director of Public Instruction,
for your kind information.

Yours faithfully,

39972

To

The Hon. Mr. A.B. Shetty,
Minister for Education & Public Health,
Government of Madras,



File submitted
to Secy

EPH(Ey)
May be added to
the main file which has
been sent to the D.P.
28/5/49. W.C.
C.P.A.
31.5.49

B. B. DEY, D. Sc.(Lond). F.R.I.C.,
Director of Public Instruction
(Retired)

29 513
San Thome, Mylapore,
19th May 1949.

My dear Reddi,

I wrote to you in August last about Dr. Govindachari - one of my former pupils and collaborators in research - requesting you to impress upon the Government the necessity of permitting him to continue to stay in the United States for one more year to complete the piece of investigation he had then undertaken. Since September 1948, after the tenure of his scholarship ^{had expired}, he has been working as a Research Fellow of the University of Illinois receiving a fellowship of the value of \$ 3600 dollars a year - a unique distinction for a foreigner in the United States of America.

Dr. Govindachari ever since he graduated from the Presidency College in 1934 had continued to work under me until July 1946 when he left on a Government of Madras overseas scholarship. To me in the College he was one of the most valued of collaborators and it is no exaggeration when I say that it was mostly because of his zeal and enthusiasm that we have in the Presidency College today one laboratory well equipped as a nucleus of technological studies. Govindachari has during his research career of over 15 years shown exceptional ability both in pure and applied Chemistry. The theses that he presented for his master's and later for the doctor's degree have both been highly praised by examiners abroad. At Illinois, he has won the golden opinion of Professor Roger Adams, one of the foremost Organic Chemist in the States, by his successful tackling of many a problem in the field of alkaloidal and dye stuff Chemistry. This elicited from Roger Adams high encomiums and appreciation of his capacity for research of a high order and made him entrust Govindachari with the task of writing an important chapter in his book entitled "Organic Reactions." This arduous task, Govindachari has completed successfully in the midst of his researches and he has sent me the other day a copy of his work.

I have dealt at some length ^{with} Govindachari's attainments in Chemistry in order to give you and the Government an idea of the talents and experience possessed by this youngman.

You know all my service I have devoted to the cause of chemical research in this Presidency and I have built up a tradition in the Presidency College of which I am quite proud of. Even today, thanks to the Council of Scientific and

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Industrial Research, I am able to continue my researches in the College laboratories. The work that we have been doing is of fundamental importance and has attracted the notice of well known Scientists in America. It is only a few days back ^{that} I had sent two papers to the Transactions of the American Electro Chemical Society on the basis of the work done recently in the College laboratories. I am ~~am~~ anxious that the tradition I have built up should be maintained and this can best be done by the careful selection of the right type of men available. Professor Sitarman who has been ably conducting the affairs of the department is due to retire in a couple of years. While he is still in service if a young man of Govindachari's abilities is taken in the Department, I am sure ^{for} the next twenty years ^{the} Presidency College Chemistry Department can proudly claim that it shall not lag behind in the field of research.

May I therefore request you to make every effort to see that Dr. Govindachari is taken up in the Presidency College when he returns in July or middle of August? Of course Dr. Govindachari would not find it difficult with his qualification and experience to get a good billet in one of the newly started Government of India research institutes such as Electrochemical Laboratory at Karaikudi ^{or} the National Chemical Laboratory at Poona. But I think Govindachari's services would be best utilised in a chair in the Chemistry department of the Presidency College where he has worked for nearly two decades and which institution he loves deeply. Indeed I feel it would be a great blunder if ^{we} you miss this opportunity of utilising his services for this institution.

Hoping you will take a personal interest in this matter,

with kind regards,

Yours sincerely,

M. S. Das

---:3:---
Natural Research, I am able to continue my researches in the College Laboratories
work that we have been doing in of fundamental importance and has attracted the
of well known scientists in America. It is only a few days back I had sent
papers to the Transactions of the American Electro Chemical Society on the basis
the work done recently in the College Laboratories. I am too anxious that the
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very selection of the right type of man available. Professor Adams who has
ably conducting the affairs of the department in due to retire in a couple of
years. While he is still in service it is a young man of Govindachari's abilities
taken in the Department, I am sure for the next twenty years Presidency College
chemistry department can proudly claim that it shall not lag behind in the field
research.

May I therefore request you to make every effort to see that Dr. Govindachari
is taken up in the Presidency College when he returns in July or middle of
August. Of course Dr. Govindachari would not find it difficult to adjust himself
and experience to get a good filled in one of the newly started Government of
research institutes such as Electrochemical Laboratory at Kharagpur and the
Chemical Laboratory at Poona. But I think Govindachari's services
to be best utilized in a chair in the Chemistry department of the Presidency
College where he has worked for nearly two decades and which institution he loves
very much. Indeed I feel it would be a great blessing if you miss this opportunity
utilizing his services for this institution.

hoping you will take a personal interest in this matter.

With kind regards,

Yours sincerely,



No.F.3-11/S.3/45-S.II.
Government of India,
Ministry of Education,

New Delhi 3, Dated the 22nd August, 1949.

From

The Secretary to the Government of India,

To

The Secretary to the Government of Madras,
Education and Public Health Department,
MADRAS.

SUBJECT:-

ADVANCED STUDIES OVERSEAS IN RESPECT OF
MR. T. R. GOVINDACHARI 1945-46 MADRAS
GOVERNMENT SPONSORED SCHOLAR.

Sir,

In continuation of this Ministry letter
of even number, dated 25th July, 1949 on the above subject
I am directed to forward herewith for the information of the
Provincial Government a copy of a letter of recommendation
written by Professor Roger Adams in regard to Mr. Govindachari's
work at the University of Illinois and received from the Indian
Embassy Washington.

Yours faithfully,

Vikram Singh
(VIKRAM SINGH)
FOR SECRETARY.

OM/20/8

COPY

UNIVERSITY OF ILLINOIS
DEPARTMENT OF CHEMISTRY
URBANA.

June 28, 1949

Wm. Albert Noyes Laboratory

Education Department,
Embassy of India,
Washington, D.C.

Gentlemen:

For the past academic year, Dr. T. R. GOVINDACHARI has had a University appointment as a research assistant and has been carrying on an investigation under my general direction. Since he will be returning to India within the next month or two, I am writing to inform you of his activities and accomplishments since last September.

Prior to last fall, Dr. Govindachari had developed a unique chromatographic system whereby it was possible to separate pure alkaloids from a mixture of closely related compounds. He has now applied this system to Senecio longilobus and to five other species of senecio. His results have afforded the evidence that in each of these species four very closely related alkaloids are present in varying amounts. Pure entities have been isolated, the empirical formulas established and the character of the acid moieties determined. Since previous investigators have reported that the extracts from the plants were individual compounds this work will serve to clarify the past discrepancies which appear in the literature.

Of equal significance is the work which he has done on the structure of a - longinecic acid, obtained by hydrolysis of a - longinecine, one of the four alkaloids mentioned above. Although some thirty Senecio alkaloids have been reported, no factual evidence has been presented concerning the structures of the acid moieties of the molecules. With a very small quantity of acid Dr. Govindachari has essentially established the structure. Since he has been able to place the various functional groups, a minimum amount of additional work when more acid is available will definitely solve the structure.

Another closely related problem which Dr. Govindachari has investigated this past year is the structure of monocrotalic acid, obtained by hydrolysis of monocrotaline, the alkaloid in Crotalaria spectabilis, the plant used for nitrifying the soil in the southern part of the United States. Although several other men in this laboratory have investigated monocrotalic acid, the conclusions about its structure have not been entirely satisfying. By a different approach, Dr. Govindachari was able to degrade the molecule and determine the exact structures of the component parts. From this work he deduced that the previously postulated structure was incorrect and a new one must be adopted.

The results of this work have been published so far in the form of three articles in the April and June numbers of the Journal of the American Chemical Society and one article in a Festschrift assembled in commemoration of the sixtieth birthday of Prof. Paul Karrer of the University of Zurich. Two more articles will appear some time in the course of the next six months.

The research which Dr. Govindachari has done at the University of Illinois will provide him with experience of value to him in India. he is entirely capable of serving as a senior professor in research for the study of natural products or of any type of synthetic problem which may arise. He has shown great originality, industry and persistence. In addition to these unusual qualifications, he is a very attractive man personally with an intellectual and cultured background. I shall always be happy to recommend him unreservedly to you or to any other organization that may desire an outstanding chemist.

Sincerely yours,

Sgd/- ROGER ADAMS?
Head, Chemistry Department.

(33) 33 A 18
No.F.3-11/S.3/45 S.2
Government of India.
Ministry of Education.
New Delhi, the 23rd September, 1949.

From The Secretary to the Government of India.
To The Secretary to the Government of Madras,
Education and Public Health Department, Madras.
SUBJECT:- ADVANCED STUDIES OVERSEAS IN RESPECT OF MR. T.R.
GOVINDACHARI, 1945-46 MADRAS GOVERNMENT SPONSORED
SCHOLAR.



In continuation of this Ministry letter of
number dated the 25th August, 1949, on the above
subject, I am directed to state that according to advice
received from the Indian Embassy, Washington, Mr. T.R.
Govindachari left the United States of America, for
India via the United Kingdom on S.S. Marine Tiger on
the 18th August, 1949.

Yours faithfully,
Vikram Singh
(Vikram Singh)
for Secretary.

IK
20.9.49.

I (3) So X EPH(E2)

34

Letter/Ref: 51308-A-2 - Edy d: 14.10.48

To. ✓ The Secy. to the Govt. of India,
Ministry of Edu.,
New Delhi. 3.

1000
100
15/10

Sir,

Sub. Application from Sri T.R. Govindachari
to F.P.S.C. 45-46 Scholar - for the post of
'Senior Scientist' in the Ministry of
Defence.

p - 35 CF

By your letter F. 3-11/S. 3/45-52 d. 23/4/48

I am directed to say that this
Govt. do not propose to forward the application
of Sri T. R. Govindachari for the post of
[P.F.O.]

10
5
Senior Scientist in the Ministry of Defence, to the
Federal Public Service Commission as they propose to appoint him
as a Professor in one of the Govt. colleges in this Province.
J.F.

10/5/49
Cua
11.5.49

Copy to E2

Very Urgent
(Case)

MEMO.No. 51908-A-3

Edn. and P.H. Dept. (A).

Edn., d/- 14.6.49

Overseas scholar Sri T.R.Govindachari -
Absorption in Edn. Dept.

Ref:- From the DPI, No.47/49, d/- 6-7-49.

The Govt. do not see any
justification ~~for~~ for sanctioning a special post of
Research Professor in the Presy. College, ~~for Sri T.R.~~
~~Govindachari~~. They have decided to appt. Sri Govinda-
chari ~~in~~ ⁱⁿ ~~one~~ ^{two} of the existing posts of Professors ~~in~~ ^{of}
Chemistry in the college, pending ~~effect being given~~ ^{appointment of a person}
to be ~~sanctioned~~ ^{sanctioned} of the post of Ch.Prof. of Chemistry
in the college. The Govt. ^{also} consider that, if necy.,
the rule prescribing the method of recruitment for
the posts in the Collegiate Secn. of the M.E.S. shd.
be relaxed in Sri Govindachari's favour ^{with a view} to enable his
appt. The present Prof. or the present Addl.Prof.
should be posted as Lecturer in another college and
the ~~junior~~ ^{transferee} officer officiating in the M.E.S.
should be reverted to the M.E.S.S. The DPI is request
ed to state whether Sri Govindachari ~~may~~ ^{can} be apptd.
as Prof. or Addl.Prof. and whether any ~~rule~~ ^{rule} ~~shd.~~
^{be} ~~relaxed~~ ^{be} relaxed in his behalf. An early reply should
be sent as information that the scholar has left U.S.A.
for India on 18-8-49 has been recd. from the G. of I.

To the DPI.
(with copies of
pp.6-7 C.F.).

Copy to E2
12/10/49
15/10

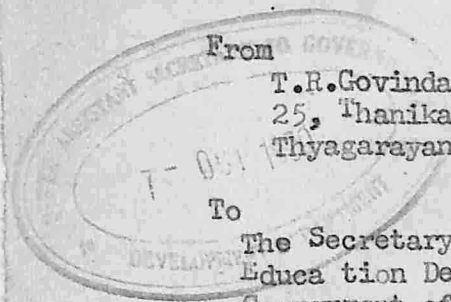
12.10.49
13/10/49

14/10/49

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36 A

26th October 1949



From
T.R.Govindachari, M.Sc., Ph.D.,
25, Thanikachalam Chetty Road,
Thyagarayanagar, Madras 17

To
The Secretary,
Education Department,
Government of Madras

Subject: Return from the United States of Government of
Madras scholar (1945)

Sir,
I wish to inform you that I arrived in Bombay on the
29th September 1949, by the Sabena chartered plane which
left London on the 26th September 1949, after completion
of my studies in the United States during the past three
years.

Yours truly,
T.R.Govindachari

82216

Copy to the Secretary, Development Dept., Government of Madras
Copy to the Secretary, Education Dept., Government of India

Div. Dept (DI)

To AS

The employment
Qn is under
consideration
in Ex-4
Dev no no
99276 DI/ul
201000
Ex-4
no
181000
8.1000
201000

CONFIDENTIAL:

Office of the Director of
Public Instruction,
MADRAS.

From:

The Director of Public Instruction,
MADRAS-6.

To;

The Secretary to Government,
Education & Public Health Department,
Fort St. George, MADRAS.

R.Cl.47/49 dated 27 October, 1949.

Sir:

Sub: Overseas Scholars--Sri T.R.Govindachari 1945-46
Scholar--Appointment as Additional Professor of
Chemistry, Presidency College.

Ref: Government Memorandum No.51908-A3-Education, dated
14.10.1949.

-0000-

Sri T.R.Govindachari may be appointed to officiate
as Additional Professor of Chemistry, Presidency College, Madras,
vice Sri P.Ramananda Rao to be transferred to the Teachers' Col-
lege, Saidapet.

2. As regards the relaxation of rules in favour of Sri
T.R.Govindachari, it is not now possible to say what rules need
to be relaxed because his basic qualification and age are not
known. I therefore suggest that he may be appointed in the first
instance under rule 9(a)(i) of the General Rules for the Provin-
cial and subordinate services and that the appointment be regu-
larised relaxing the relevant rules, after full particulars of
the scholar are available. I shall submit a further report in
this regard soon after the scholar takes charge.

3. The junior-most transferee Officer officiating
in the Madras Educational Service in the Chemistry Unit is Sri
M.Lakshmanan, Lecturer in Chemistry, Government Arts College,
Madras. He has put in over three years' service and is an approved
probationer in the Madras Educational Service. It would not be
equitable to revert him to the Subordinate Educational Service
while Sri V.S.Ramanujam, who has been officiating in the Madras
Educational Service from 18.5.1949 only and who is the junior-
most in the Physics Unit and far junior to Sri M.Lakshmanan in the
service, is continued in the post of Lecturer in Physical Science,
Teachers' College, Saidapet, which can be held by either a Physics
or a Chemistry man. I therefore, propose to transfer Sri P.Rama-
nanda Rao as Lecturer in Physical Science, Teachers' College, Said-
apet and revert Sri V.S.Ramanujam to the Subordinate Educational
Service, subject to the orders of Government on para 4 below.

4. Sri P.Ramananda Rao is not eligible for appointment
in the Teachers' College, Saidapet with reference to rule 6(b)
of the Special Rules for the Madras Educational Service as his
language is not Tamil but Kannada. To transfer him to another
College with a view to bringing a Tamil-knowing Chemistry Lecturer
to the Teachers' College will involve a few long distance transfers
which are best avoided at this part of the year. Sri M.Lakshmanan
of the Government Arts College, Madras is a Telugu Officer and will
be no better than Sri Ramananda Rao for work in the Teachers' Col-
lege. I am of opinion that Sri Rao's ignorance of Tamil should
not prevent his transfer to this College as a temporary measure
in view of the circumstances necessitating it. The Principal
has also agreed to this arrangement as a temporary measure. In
the circumstances I request that Government may kindly relax the

(P.T.O.)

provision of rule 6(b) of the Special Rules for the Madras Educational Service with a view to enabling the transfer of Sri P.Ramananda Rao to the Teachers' College, Saidapet.

Yours faithfully,

for DIRECTOR OF PUBLIC INSTRUCTION.

Gsk:27.10.49.

M.E.S. - Sri T.R.Govindachari, overseas scholar -
Apptd. as Addl.Prof. of Chemistry temporarily.

Read:- From the DPI, No.47/49, d/- 27-10-49.

G.O.(MS.) No. 3442 Edn. d/- 10.10.49

① Under rule 9(a)(1) of the General Rules for the Madras Provl. and Sub. Services, Sri T.R.Govindachari, Govt. scholar who has returned to India after completing his higher studies overseas, is apptd. to officiate as Addl.Prof. of Chemistry in the Presy. College, in the M.E.S., w.e.f. the date of taking charge, vice Sri P.Ramananda Rao.

② The appt. has been made under the emergency provn. in the rules pending exam. of the qualifs. of Sri Govindachari and of the question whether any statutory service rule requires to be relaxed in his favour with a view to his regular appt.

③ Nothing herein contained will affect the rights of Govt. under the bond executed by Sri Govindachari.

① The Govt. approve of the proposal of the D.P.I. for the transfer of Sri P.Ramananda Rao from the post of Lecturer in Physical Science in the Teachers' College, Saidapet, and to for the reversion to the Madras Edl. Subordinate Service of Sri V.S.Ramanujam from the M.E.S.

② Under section 24(5) of the G. of I. Act, 1935, H.E. the Governor of Madras hereby directs that rule 6(d) of the Spl.Rules for the M.E.S. be relaxed in favour of Sri P.Ramananda Rao so that he can be transferred as a tempy. measure to the post of Lecturer in Physical Science in the Teachers' College, Saidapet, although he does not know Tamil.

To the D.P.I.
" A.C.
" S., MPSC.
" Public (Ser.)
Para I (1) only.

To the Pub. (CL).
" P.W. (I.P.).
" S.G.P. (for pubn. in the P.S.C.C.).

Copy to S. T. Govindachari
25, Thaniyachalam Chatti
Ad.
Madras 17.

P 4 11 01

544E

(39)

Dev. Dept

39

CV 073760 DI/US

TO AS witness to address of 2' p9 nry bophle
Relevant Extracts from the top file
have been added to this file. this
may now be returned to SEB

CV 073760 DI/US
Continued

VW
1.11.48
1.11.48

CAG
5.11.48

Dev no no 73760 DI/US.3

8. 11. 48

0709531

Extract from note file p.no.2(13) DI/48.

29
T.R. Govindachari: Sri T.R. Govindachari is a private candidate with M.Sc. and Ph.D. in Organic Chemistry. He was selected in 1945 for advanced studies in "Organic Chemistry Chemistry of Dyestuffs". The scholar appears to be due to return from abroad in September 1948. In July 1948 the employment forms of the scholar were sent to the D.I. & C. enquiring whether a suitable appointment could be secured for him in Industries Dept. or under a private institution. The D.I. & C. now reports that no suitable post can be offered for him and that he will be considered for appointment in any suitable post of chemist that may be required in Andhra Paper Mills. It appears that the scholar will not be absorbed within the stipulated period of 3 months. It is for consideration whether the main file may be returned to R. & P.H. for remarks.

R. & P.H. may take action to release him from bond.

CPG
27-9-48
WRS

R. & P.H.

Item (12) on p.9 ante: Sri T.R. Govindachari: The Govt. have permitted the scholar to continue research in Organic Chemistry in America for 1 year from 25-8-48 at his own cost. He has secured a Fellowship of the University. In this connection attention is invited to the Minute of H.M. (Edn.) wherein it is suggested that the services of the scholar on return might be utilised for research in the Presidency College. It was finally decided that as there was no definite sanctioned post in the Edn. Deptt. invited this question might be taken up separately in due course in consultation with the P.P.I. If Dev. Deptt. do not require his services they may be requested to transfer this file to this Deptt. for necessary action.

True copy
V. Srinivasan
Superintendent
V.S.
4-11-48

C.No. 32242/49

40

41

EPH(E2)

Sub. Overseas Scholarship-Sri T.R. Govindachari
- 45-46 Scholar.

C.No. 32242/49. From Govt. of India, Ministry of Edu F.3.11/52/45
d. 25-4-49.

Sri T.R. Govindachari is a scholar
selected in 45-46 for advanced studies in the
"manufacture of dyes and tinctorial chemistry". The
period of his scholarship terminated on 25-8-48
and he was allowed to stay in ^{the} U.S.A. for a
further period of one year at his own cost, to
complete his research work. He will return to
India in Sep. 49.

para 2. p. 8. N.F. (X)
p. 46 C.F. (X)

2. The Govt. of India have
forwarded the scholar's application for the post of
'Senior Scientist' in the Ministry of Defence, for
forwarding ^{it} to the Federal Public Service Commission,
if this Govt. so desire. The scholar was originally
intended for absorption in the Industries Dept. on
his return. But that dept. had no suitable post
to offer him. In this connection the late H.M. (Edu)

'K' at p. 7 N.F. (X) has minuted as follows: "Dr Savor also tells me
that we cannot get a better man. In these circumstances
I suggest that he may ^{be} utilized for research in
the Presidency college itself where he studies which
will really be using him in the proper place".

'A' at p. 9 N.F. (X) For Secy. noted that as there was no definite
sanctioned post in the Edu. dept. at that time,
the matter may be might be taken up in due
course. As the scholar in view of the minutes of
the late H.M. (Edu) quoted above, this Govt. cannot afford
to ^{lose} the services of ^{the scholar} Sri T.R. Govindachari. His
application need not be forwarded to the P.P.S.C.
Subject to orders a draft letter to the Govt. of India

is submitted. Des may see before circulation.

11-5-49

It is a suitable post
become now available
with us if not, should we
not take steps to create it

12/5

A section may please
answer J.S.'s query.

12-5-49

A

in Chemistry

There are now two M.E.S. posts/in the Presy.

College - one Professor and the other Addl. Professor. They are on the scale of pay of Rs.230-700 and are held by two 'promotees' from the Subordinate Service - viz., Sri M.V. Sitaraman and Sri P. Ramananda Rao, of whom the former is due to retire in Novr. 1950. Last year, the Govt. sanctioned for the Presy. College a post of Chief Professor of Chemistry on Rs.300-1,000 (along with similar posts for other subjects), in lieu of the Prof.'s post. The sanction has not ^{however been} given effect to; for, the question of prescribing qualifns. and the method of recruitment for the Chief Profs. is lying over, pending a decision on the recommendations of the Raman Committee for the re-organization of the Presy. College.

in Aug. last.

When the former Minister for Edn. minuted that

K/7

Dr. Govindachari might be utilized for research in the Presy. College, he had apparently in mind the proposal for the re-organization of the college. If Dr. Govindachari's qualifns. are considered by the D.P.I. as superior to those of either of the present Profs. and if he will be more suitable than either of the Profs., he can be taken in in one of the posts, temporarily for the time being, the present Prof. or Addl. Prof. being provided for in a non-Hons. college. When the Chief Professor's ^{post} is advertised after qualifns., etc. are laid down for it, he can be advised to compete for it, along with ~~many~~ others, and if he happens to be the best among the applicants, then

he may be apptd. regularly as Ch. Prof. Otherwise, he may be continued, on a regular footing, as Add. Prof. or as Lecturer in another college. Consultation with the MPSC for his appt. will not be neccy. In any case, it does not seem that his services shd. go unutilized by this Govt. themselves, who sent him abroad at their cost. His appln. to the FPSC may therefore be withheld.

(It may be mentioned here that an Asst. Prof. in the Presy. College, Sri B. Gopalakrishniah, was also sent overseas - U.S.A - for higher studies. He is due to return to India shortly, and the qn. of finding for him a suitable post has to be taken up in the near future. But, his subject being "Engineering Chemistry", he will fit better in an appt. in an Engg. College.)

The urgent remarks of the D.P.I. on the foregoing may be invited u.o., before a decision is taken.

EPH No 32242-E2/49-1

31-5-49

my com sent.

Reminds

OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
Madras.6, Dated 6 July 1949.

U.O. [R.Cl.No.47/49]

Sub: Overseas Scholarship - Sri T.R. Govindachari - 1945-46
Scholar - Employment of.

REF: Government U.O. E.P.H. 32242-E2/49-1 dated 31-5-1949.

The qualifications of Sri T.R. Govindachari are superior to those of either of the present Professors of Chemistry in the Presidency College. Though he is more suitable for this college than either of the present Professors, yet it is not possible to appoint him now either as Professor or Additional Professor of Chemistry for the following reasons:-

(1) The appointment of Sri T.R. Govindachari in one of the Madras Educational Service posts in Chemistry in the Presidency College will lead to a probationer in the Unit being reverted to the Subordinate Educational Service.

6

(2) The names of Sri B.S. Srikantan and Sri B. Gopalakrishniah have been put on the approved list for the Chemistry Unit (G.O. 1793-Education dated 9-8-1947). The former, being a probationer in the Madras Educational Service, will have to be appointed in any future vacancy in the service in the Chemistry unit unless the vacancy is in a special post for which he may not be qualified or has to be filled by direct recruitment.

(3) According to rotation, the next vacancy in the Chemistry unit will have to be filled by transfer and that after the next by direct recruitment. Sri Govindachari could be taken in as a direct recruit and till then he would have to be appointed in a special post.

2. It is not desirable to appoint Sri Govindachari, in advance of the turn of a direct recruit, to an ordinary teaching post to the detriment of the interests of the probationer Sri B.S. Srikantan and Sri B. Gopalakrishniah in the "Approved List". In order that the scholar might be employed mainly for research work and that his appointment might not affect the existing probationer it is recommended that a temporary post of Research Professor be created in the Presidency College on the scale of Rs. 230-700 for a period of one year in the first instance and that Sri Govindachari be appointed to that post until he could be taken in as Chief Professor of Chemistry or as a direct recruit to the Madras Educational Service.

While holding the post of Research Professor Sri T.R. Govindachari could engage himself in research work and advanced teaching and also guide the post-graduate students in research work.

Director
DIRECTOR OF PUBLIC INSTRUCTION.

To
The Secretary to Government,
Education and Public Health Department,
Madras.

Edn. and P.H. Dept. (A).

The D.P.I.'s proposal for the creation of a special post as for Sri Govindachari is highly unsound in principle and would be a bad precedent if accepted. He has not established that w.r.t. the conditions in the Presy. College there is need for a new post. It is subd. that the proposal need not be accepted.

2. When the Dir. admits that Sri Govindachari's qualifns. are superior to those of either of the present professors in the Presy. College and that he is more suitable than either of them, there is a case for appointing him in one of the existing Profs.' posts themselves. If reasons similar to (1) & (3) in para 1 of his note are advanced against the appointment of a new direct recruit from outside, to one of the Profs.' posts, they would naturally deserve consideration. But the appointment



used to denote -
"not under the emergency
powers."

9

here is of a candidate who is highly qualified, qualified more than any of the deptl. men or at least most of them; whom the Govt. sent for further studies overseas at their expense; and who would be an asset ^{to} Govt. The Dir.'s reasons therefore do not appear to be germane in this case. As a general measure applicable to all overseas scholars, the relaxation of service rules (re: practical experience, etc.) which technically stand in the way of the scholars' absorption by Govt. themselves in their service, was decided on. That decision should, it seems, be extended, in respect of Sri Govindachari, to the rules prescribing the methods of recruitment for the category of posts in which he is to be apptd. He may be regularly appointed as Addl. Prof. in the Presy. College, the juniormost officer in the Chemistry Unit of the M.E.S. (Men's Br.) being now reverted to the Sub. Service and taken into the service again in due course in the next vacancy. The postponement of the promotion of deptl. men, involved in the proposal, is inevitable.

3. Fin. and Pub. (Ser.) may see before circn.

20.7.49
21/7



Notes from page 5 above may be perused. Submitted that Finance may fully agree with the views of E.H.W. in their notes in paras 1 to 2 on pp 8-9 above. The case may be passed on to

27.7.49

Pub (Ser.)
26.7.49

Pub (H) Dpt

Notes from p 5 and maghe pended. This dpt may agree with the proposals of E+P. As the going relaxation grades is involved the case maghe circulated to H. H. A copy of the order relaxing the rules must be communicated to the MP&C. The file maghe returned to B+H.

29.7.49

30.7.49

29/7/49

29.7.49
30.7.49

58861

Ed. & P. D. Dept. (H)

pp. 7-8 and

p. 8 and

p. 9 and

1A.

pp. 9-10 above

(Proc)

2/6/8

The other day at the Conference, I think we decided to proceed with the appointment of Professors which was kept in Abeyance. Cannot this scholar be appointed

to one of those posts and avoid the hardship to the existing Professors?

KM

7/8

Subd. Chief Professors' posts have been sanctioned for the Presidency College only in place of (and not in addition to) the existing ordinary Professors' posts in the subjects concerned. Therefore, if Sri Govindachari is apptd. either as Chief Professor or as Professor (or as Additional Professor), one of the present Professors

will be displaced and he has to be provided in another college, the juniormost in the service as a whole being reverted to the subordinate service.

Rules prescribing the method of appt., etc. have not been actually issued yet for the Ch.Profs.' posts. The question whether the selections for the posts are to be entrusted to the M.P.S.C. or to any special committee, has been referred to the D.P.I. - Vide L.F. It seems it would be better if recruitments are made to all the Chief Professors' posts together.

If Sri Govindachari is apptd. as ordinary Professor as soon as he returns to India (he has not yet come back from overseas), he may be advised later on, after the rules are framed to apply for the Ch.Prof.'s post, and if he is chosen as the best among the applicants, then he may be apptd. as Ch.Prof.; if he is not ~~not~~ selected, he may be continued as Professor.

May be recirculated.



During the creation of posts of Chief Professor, Sri Govindachari may be appointed as professor in the existing post

2/6/8

2/6/8

2/6/8

2/6/8

2/6/8

2/6/8

2/6/8

Orders in circn. on p.11 ante.

The draft letter to the ^{3.9.49} ~~PPSC~~ as added to

may be issued.

A draft Memo. to the DPI is subd.



Issued as Letter No.51908-A-2-Edn., d/-14-10-49, and Memo.No.51908-A-3-Edn., d/-14-10-49.

From Sri T.R.Govindachari, dated 6-10-49. ^{CF.12}
From the D.P.I., No.47/49, d/-27-10-49. ^{CF.13}

Sri T.R.Govindachari has returned to India on 29-9-49. ^{CF.12}
The D.P.I. has proposed that the scholar may be apptd. as ~~Rex~~ Additional Professor of Chemistry in the Presy. College, under the emergency provisions for the present, the appt. to be regularized later on, and that Sri P.Ramananda Rao, the present Addl. Prof., may be transferred as Lecturer in Physical Science in the Teachers' College, Saidapet. ^{CF.13-14}
Rule 6(d) of the Special Rules for the M.E.S. requires that only if an officer knows Tamil, he ~~is~~ can be apptd. in the Teachers' College. This rule requires to be relaxed in Sri Ramananda Rao's favour as he does not know Tamil. ^{BK.113}
~~But~~ The D.P.I. has fully explained how the relaxation will be justified; the officer will be retained in the Teachers' College only as a tempy. measure. All the Dir.'s proposals at C.F.13-14 may be accepted. ^{CF.13-14} Pub.(Ser.) may see before circn. to H.M.(E.&L.) and H.Pr. A copy of the order of relaxation will be sent to the M.P.S.C.

Public (Services) Dept.

(last seen at p.10 ante)

E & P.H. Dept.'s subsequent notes, the orders in circulation on pp.10-11 ante and that Dept.'s further

note on p.12 ante may be perused and the file returned to E.&P.H.

Pub.(Ser.A)
U.O.No 4259/48-1
6/11/49



May be circulated to H.M.(E.&L.) and the House Premier.

1/11/49

1/11/49

The proposal of D.P.I. may be accepted

H. or

A draft order is subd.

9/11/49

the ... of ...

11/11

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the ... of ...

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the ... of ...

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