

DR. R. K. SRIVASTAVA,

M.Sc., D. PHIL.,
ASSISTANT DIRECTOR

PHONES [OFF. 27031-247
RES. 27031-283
TELEX : 0595-217

INDIAN INSTITUTE OF PETROLEUM
P.O. I.I.P., DEHRA DUN (INDIA)

June 13, 1984.

Dr. (Mrs) S. Ranaganayaki, D.Sc.,
68 Dilkusha,
New Katra,
Allahabad 211 002.

Dear Bhabhiji:

Thank you for your letter reminding me of my obligations and also the telegram. I am enclosing a copy of my report on Panna Lal Srivastava's thesis. As you know, I retired on 30th April and am now getting used to post retirement life. Hence the delay in submitting my report. Will the Allahabad University now pay me TA and DA at some reduced rate befitting my reduced status?

The photolysis of water by marigranules and jeewanu is of extreme importance to us and the results that have been reported in this and the earlier theses are quite interesting. As I have said earlier also, you must now put one or two of your Ph.D. students to work along these lines: 1. studies to increase the size and production of marigranules/jeewanu; 2. studies on specific hydrogen production and the optimum conditions for maximum production. The second study would require some chemical engineering inputs and there could be a joint study by your group and a group of chemical engineers from

Motilal Nehru Engineering College.

I am now busy in making some modifications to my parents' house and would, therefore, request you to kindly fix the viva some time in September/October. We have had some rains here and there is a distinct improvement in the weather.

With our best regards to you and Dr. Krishna Bahadur,

Yours sincerely,

R. K. Swastan

Report on the thesis submitted by Shri Pannaial Srivastava of
The Chemistry Department, Allahabad University for the D.Phil.
degree.

The work done by the candidate is of good quality and gives
evidence of the ability of the candidate to carry out signif-
icant experiments and evaluate their results critically. Part-
icularly impressive is the comparative study of marigranules and
jeewanu demonstrating clearly the stages of chemical evolution
and the fact of the importance of the ability of abiogenically
arising material to split water into hydrogen and oxygen in the
presence of sunlight thus giving rise to an oxygen rich atmos-
phere in which subsequent air breathing life would flourish and
evolve. Also interesting is the phenomenon of photolysis of water
itself with its significance for these energy hungry times. The

experimental evidence of the greater photolytic activity of mar-
igranules as compared to jeewanu indicates what the primary bio-
logical activities were which laid the foundation for the un-
folding of the entire panorama and drama of evolution of life on
earth.

The thesis is reasonably good in literary presentation.

I, therefore, recommend that the D.Phil. degree be awarded to the
candidate.

R. K. Swastava
(R. K. Srivastava)