

68 Hammond Street
Rochester, NY 14615
July 17, 1976

Mr. Rolf G. Kuehni
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Mobay Chemical Corporation
Union, New Jersey 07083

Dear Rolf:

Thank you for your letter of June 29 concerning the working program of CIE TC 1.3 Colorimetry.

I agree with you that a color-difference metric (based on threshold or near-threshold perceptibility of color difference) and a color space based on large-difference scaling (such as the CSA uniform-color-scales determinations) are essentially different. But I understand the program of the CIE committee to refer, not to the small-vs large-difference problem, but merely to the problem that the "1976" recommendation" would create by sanctioning two discordant formulas for evaluating small color differences. That large color difference became involved, by neglect to specify that the two formulas were each intended to apply only to small color differences, was pure inadvertance, aggravated by inconsistent definitions of hue and saturation in terms of both formulas.

My strategy is to cause the "1976 recommendation" to die by preventing its approval by so many national committees that the Central Bureau will refuse to publish it. That the US National Committee has not yet received the proposal for consideration encourages me to hope that the proposal has been stopped in the Action Committee, despite the fact that Dr. Wyszecki is Chairman of that committee. I know that the US member of the Action Committee, Dr. Sylvester Guth (former chairman of the Action Committee and now President of the CIE) feels that the proposal is premature. After my presentation of the matter at Charlottesville last October, Dr. Guth, without prompting, volunteered that opinion. Therefore, I have reason to hope that the proposal will die. If so, a new working program would have to be dormulated by TC 1.3 (possibly at a meeting held in connection with the meeting of the AIC in Troy, NY, next July). I hope you will be present at any such meeting.

In preparation for such a meeting, I would welcome a specific proposal from you that I can circulate soon to the US TC 1.3 committee. If you could send that to me within the next month or two (at the most) I would send it to our committee in tim^e for their consideration

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and response, so that whatever members of the committee are present at the OSA meeting in Tucson in October can discuss it. I would circulate a summary of that discussion, and tentative conclusions, in time for further discussion and formulation of the final proposal of the US TC1.3 during the Annual Meeting of the ISCC next Spring.

To carry any weight whatever, in the deliberations of CIE TC1.3 next July, it is essential that the US proposal contain specific commitments by competent workers, who have adequate experience, facilities, and support by their employers, to carry out substantially all of the investigations prescribed by the proposal.

It is not enough to say, as in the past, that thus and so would be desirable. To break the present deadlock, it is necessary for specific laboratories to undertake specific, significant parts of the required program of research, with firm, early dates for completion.

The most the full CIE committee can be expected to do would be to select among stated alternative procedures, and to undertake to base a recommendation for a single formula for evaluation of small color differences on the results of the agreed-upon research.

If you wish to include a proposal of a color space specifically for (and explicitly confined to) large color differences, let that be clearly separate from the formula for evaluation of small color differences. The latter need not even imply or be interpretable in terms of a color space. Note that the Friele formula is of such a type. I am not convinced that a smoothed Friele-type formula would not be satisfactory for small differences.

Thank you for your interest and concern about the program of CIE TC1.3, and for your participation in the work of the US committee. I look forward to receiving from you a proposal that I can reproduce verbatim, to send to the other members of our committee.

Sincerely,



David L. MacAdam, Chairman
CIE, US TC1.3