LVIII. On the process for obtaining the bichromate of the perchloride of chrome, as viewed under the microscope

Rev. Edward Craig F.R.S.E.

To cite this article: Rev. Edward Craig F.R.S.E. (1838) LVIII. On the process for obtaining the bichromate of the perchloride of chrome, as viewed under the microscope , Philosophical Magazine Series 3, 13:84, 433-433, DOI: [10.1080/14786443808649620](https://doi.org/10.1080/14786443808649620)

To link to this article: <http://dx.doi.org/10.1080/14786443808649620>

Published online: 01 Jun 2009.

Submit your article to this journal [↗](#)

Article views: 2

View related articles [↗](#)

The lowest heat of a spirit-lamp is quite sufficient for effecting the decomposition.

So far as I have been able to observe, there are no differences in the phenomena exhibited in the reduction of Hg from Hg Cl and Hg Cl², or in any of the circumstances connected with the processes, by which we can form any judgement as to which of these compounds we are operating upon.

I am, Gentlemen, yours, &c.

Leeds, June 5, 1838.

JOHN B. NEVINS.

LVIII. *On the Process for obtaining the Bichromate of the Perchloride of Chrome, as viewed under the Microscope.*
By the Rev. EDWARD CRAIG, F.R.S.E.

To the Editors of the Philosophical Magazine and Journal.
GENTLEMEN,

I OBSERVE in your Number for July, p. 78, a notice of the bichromate of perchloride of chromium, and of the process for obtaining it. It may perhaps be interesting to call attention to the exhibition of this process under the microscope, which certainly throws some light upon the action going on. It presents one of the most beautiful objects ever seen.

Put a very small portion of the muriate of soda on a thin flat glass, and add to it a drop of strong solution of bichromate of potass; lay this on the port-object, and adjust it to the focus of the microscope. Then place upon another flat glass a drop of sulphuric acid, and turn it down upon the other glass. The action commences. The sulphuric acid is seen attacking and breaking down the muriate of soda and setting free the muriatic acid. Crystals of sulphate of soda are speedily formed. The sulphuric acid acts also on the bichromate of potass, and sets free the chromic acid; crystals of sulphate of potass are also formed. Over these crystals of both kinds a multitude of green particles are observed, which are probably a chromate of potass, formed from one equivalent of the chrome in the bichromate, and then the other equivalent of the chrome combines with the disengaged chlorine, and appears in large blood-red globules over the whole field. The operation when steadily watched is very beautiful; and it is one in which the microscope seems to develope with peculiar interest a process whose specific features are lost sight of in the retort. According to the view which is thus given of the process, it seems natural to call the product chlorochromic acid.

I am, Gentlemen, yours, &c.

Burton Latimer, Kettering, Oct. 20, 1838.

EDWARD CRAIG.

Phil. Mag. S. 3. Vol. 13. No. 84. Dec. 1838.

2 F