Chrome yellow paint fabrication

PhD project 2018-2022
Gauthier Patin, Art Ness Proaño Gaibor

Pigments	_ Sigma Aldrich, Lead (II) chromate _ Lemon chrome yellow L2b : $PbCr_{1-x}S_xO_4$ with x = 0.5 (made in Lisbon with V. Otero)[1]
Date	From 30/04/2019 to 02/05/2019
Location	Rijksdienst voor het Cultureel Erfgoed, Atelier Gebouw, Amsterdam, The Netherlands
Participants	Gauthier Patin[2] under the supervision and with the help of Art Ness Proaño Gaibor[3]
Purpose	The paint will be used in three different projects: 1. The majority of the paint will be used by the artist Charlotte Caspers in order to paint a reconstruction of the Sunflowers painting by Van Gogh. This reconstruction has been ordered by the Van Gogh Museum in the frame of the 2019 summer exhibition on the sunflowers. 2. A small part of the paint will be given to Gauthier Patin for his PhD experiments on colour changes in Van Gogh artworks. 3. Another small amount will be given to Laurens van Giersbergen for his Master thesis experiments on the comparison of different light aging devices.
Results	Two aluminum tubes containing chrome yellow paint have been made: 1. Sigma Aldrich, Lead (II) chromate : 98.2176 g 2. Lemon chrome yellow L2b : 53.92914 g More information about each chrome yellow paint is given below (Tables 1 and 2).
Safety	Since chromium (VI) oxide is extremely toxic, each step of the recipe has been performed under a fume-hood/masks with blouse, gloves, and glasses. We recommend to read the International Chemical Safety Card on chromium (VI) oxide before making such pigment.
Ingredients & tools	• Windmill pressed linseed oil → same oil used for the ReViGo project (Geldof et al., 2018) • Glass plates • Glass mullers • Aluminum empty tubes • Knifes and spatula

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1 A previous report describes the fabrication of this pigment
2 University of Amsterdam and Van Gogh Museum, Amsterdam, The Netherlands
3 Rijksdienst voor het Cultureel Erfgoed, Amsterdam, The Netherlands