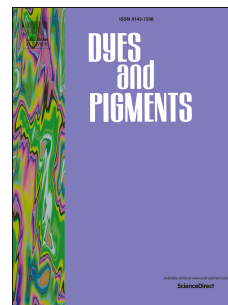


Accepted Manuscript

Crystal structure studies of selected lithol red salts with the use of powder diffraction data

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PII: S0143-7208(18)30790-3

DOI: [10.1016/j.dyepig.2018.08.002](https://doi.org/10.1016/j.dyepig.2018.08.002)

Reference: DYPI 6915

To appear in: *Dyes and Pigments*

Received Date: 8 May 2018

Revised Date: 31 July 2018

Accepted Date: 1 August 2018

Please cite this article as: Grzesiak-Nowak M, Oszajca M, Rafalska-Łasocha A, Goszczycki P, Ostrowska K, Łasocha Wiesław, Crystal structure studies of selected lithol red salts with the use of powder diffraction data, *Dyes and Pigments* (2018), doi: 10.1016/j.dyepig.2018.08.002.

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1 **Crystal structure studies of selected lithol red salts with the use of powder diffraction**
2 **data**

3
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9
10 **Abstract**

11
12 Lithol reds – azo compounds used as pigments in paintings and in the plastics and printing
13 industries – were studied, with the result that the crystal structures of their salts with NH₄⁺ and
14 Na⁺ cations were determined from powder diffraction data. Moreover, the thermal stability
15 and light-induced degradation of lithol reds were investigated. The obtained results were
16 correlated with the disappearance of colours in the paintings of Mark Rothko.

17
18 **Keywords:** lithol red, pigments, crystal structures, powder diffraction

19
20 **1. Introduction**

21
22 So-called lithols, which were among the first synthetic colouring compounds, belong to the
23 group of twentieth-century azo pigments also known as PR49:0 to PR49:3 (International

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