

पेटेंट कार्यालय  
शासकीय जर्नल

**OFFICIAL JOURNAL  
OF  
THE PATENT OFFICE**

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निर्गमन सं. 37/2023  
ISSUE NO. 37/2023

शुक्रवार  
**FRIDAY**

दिनांक: 15/09/2023  
DATE: 15/09/2023

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पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(54) Title of the invention : SYNTHESIS OF CLAY-BASED NANOSCALE PIGMENTS

(51) International classification :C02F0001280000, B82Y0005000000, B01J0020120000, A61K0008490000, A61K0008290000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

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## (57) Abstract :

ABSTRACT Synthesis of clay-based nanoscale pigments comprising adding 5 g of clay/clay minerals (Mt/Vt) in 400 mL of double distilled water, wherein clay is pristine clay; stirring the mixture for 24 hrs; adding 100 mL of 2% cetylpyridinium chloride (CPC) in clay suspension, after stirring of 5-6 hrs; stirring the mixture for 2 hrs and keeping the dispersion for settling down; centrifugating the dispersion at 8000 rpm for 20 min for separating residue from the supernatant; obtaining dust by air-drying the remnants and crushing them using a pestle and mortar; designating modified clay as organo clays Montmorillonite and Vermiculite (OMt and OVt); performing adsorption efficiencies of pristine and organo clays; interacting with cationic and anionic dyes; and drying at 80 DEG C for obtaining clay nanopigments. FIG.1

No. of Pages : 17 No. of Claims : 5