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Efficient Removal of La(III) from Water by Surface Metal Sequestration Methodology using 5-Azo-Phenolate-8-Hydroxyquinoline as a Task Designed Sequestering Material

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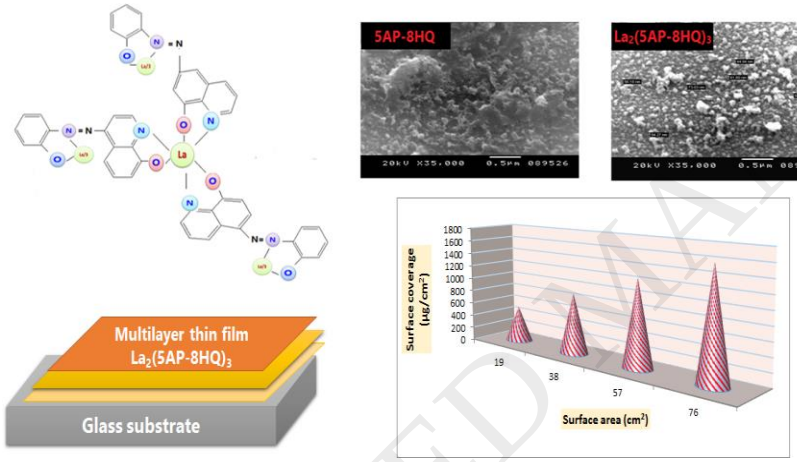
Graphical abstract



Highlights

- Efficient depositive removal process of La(III) by SMSM.
- 5AP-8HQ was used as a task designed sequestering reagent.
- The molar stoichiometric of La(III) complex is $La_2(5AP\text{-}8HQ)_3$.
- The highest surface coverage was recognized as 1597.4 µg/cm^2.
- Adsorption isotherms, kinetic study and thermodynamic parameters.