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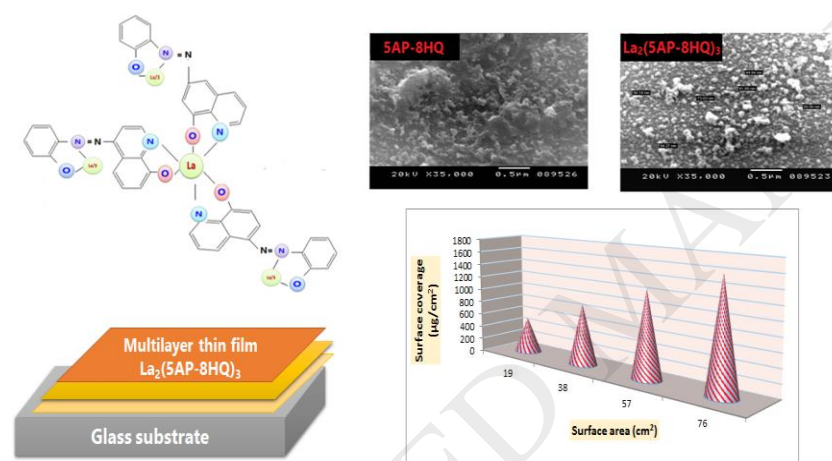


# Efficient Removal of La(III) from Water by Surface Metal Sequestration Methodology using 5-Azo-Phenolate-8-Hydroxyquinoline as a Task Designed Sequestering Material

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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  $\text{La}_2(\text{5AP-8HQ})_3$ .
- The highest surface coverage was recognized as  $1597.4 \mu\text{g}/\text{cm}^2$ .
- Adsorption isotherms, kinetic study and thermodynamic parameters.

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