

## EXAMPLES OF STUDIES ON ELECTROPHORETIC DEPOSITION PROCESS OF FUNCTIONAL THIN FILMS

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Functional thin films or coatings, with thickness ranging from nanometers to few micrometers are playing a very important and indispensable role in daily life. This presentation will summarize our very recent works on the synthesis of multifunctional nanocomposites thin films or coatings by chemical solution deposition (CSD) strategy namely electrophoretic deposition (EPD) process [1-12]. In this study, octahedral atom clusters [1-9, 11, 12, 14],  $\text{HfO}_2$  [13] and  $\text{Sb}_2\text{S}_3$  [10] were used to prepare functional thin films. The EPD process appears a performant strategy to fabricate thin films and coatings for optical and energy applications. Other CSD processes (drop-casting, spray-dip-spin coating...) will be compared for few examples.

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