The influence of nanomaterials on anti-fouling coatings

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Abstract Nanomaterials play an important role in improving the mechanical properties of organic anti-fouling coatings. The influence of different types of nanomaterials on organic coatings was studied in this work. The nanomaterials studied mainly include TiO_2, ZnO, g-C_3N_4. Among them,TiO_2 was spherical, ZnO was flower shaped, and g-C_3N_4 was layered. The main component of organic coating is water-based acrylic resin. The mechanical properties of the acrylic resin coating are all improved when the three types of nanomaterials mentioned above are added. The density of the coating has also been improved due to the addition of the .nanomaterials.

Keywords Nanomaterials, anti-fouling coatings,TiO_2, ZnO, g-C_3N_4

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