

# One-dimensional Luminescent Nanofibers of a New Erbium (III) Complex Prepared by Electrospinning

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Lanthanide metal-organic frameworks (Ln-MOF) exhibit stunning photophysical properties due to visible and NIR region sharp emission and long luminescence lifetimes and are widely used in photonic applications such as sensors, solar cells, lasers, screens, next generation lighting sources, light emitting devices [1,2]. Among these areas, OLED technology, which is formed from the organic / inorganic layer of the part that provides the emission in LED technology, which is attracted by its advantages such as thinner, lighter and lower energy consumption than optoelectronic applications, is the most promising field [3,4]. In this work, we report the use of electrospinning methods for the preparation of polymeric nanofibers containing Er-MOFs and poly(methyl methacrylate) (PMMA) and polyacrylonitrile (PAN) solution, and also have performed a detailed investigation of the photoluminescent properties of the material and examined the production of tunable visible light-emitting devices based on nanofibers.

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