

# Water-Soluble Electron Transport Layers for OLEDs



## ConvEne IGERT

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Electron transport layers (ETLs) are a critical component of organic light emitting diodes (OLEDs), as they significantly improve the luminescence efficiency of these devices. Most ETLs are currently vacuum deposited to avoid interfacial mixing of the ETL and the organic-soluble emissive layer. However, vacuum deposition is both expensive and time-consuming, and thus, it is not practical for large-scale applications.

The goal of this research is to develop water-soluble small molecules for ETLs. These ETLs could then be cast from aqueous solution, thereby preventing mixing with the underlying organic-soluble layers.

