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Research paper

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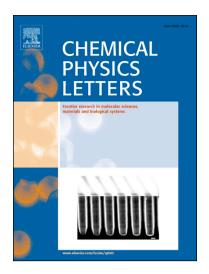
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CCEPTED MANUSCRIPT

Comparison of experimental photonic and refractive index characteristics of the

TBADN films with their theoretical counterparts

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**Abstract** 

Photonic properties and refractive indexes of the TBADN films were investigated with

various experimental and theoretical methods. The effects of the film thicknesses on the

photonic properties of the TBADN films were examined. It was found that while the optical

band gap of the TBADN film decreases with increasing film thickness, the refractive indexes

exhibit a normal dispersion behavior for both experimental and theoretical techniques. This

study shows that the most suitable optoelectronic parameters for optoelectronic devices can be

achieved with film thicknesses. The TBADN molecule was found to have a lower refractive

index in the chloroform solvent.

Keywords: Anthracene, TBADN films, refractive index, photonic properties, film thickness.

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