## Analysis of the performance of a Laser emitter perpendicular to the surface of the organic cavity to enhance optical power of single-mode and a low threshold current

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In this study, we simulate and consider voxels of photonic crystal by Lumrykal software. First, we simulate a simple laser. And we saw a lot of modes are included. crystal structure To reduce the number of modes and achieve single-mode photonic was used.next, Lomrykal software was used to simulate a photonic crystal. And then its structure was optimized to get the best response. hexagonal and square were studied forPhotonic crystal structures of circular structures. We have seen that the structure of photonic crystal voxels of hexagonal has the best response in terms of casualties and the number mode.

Keywords: Keywords: Laser-based applications to photonic crystals, cavity

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