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***Abstract***

***Process of the inventive problems solving of optical systems design for applied applications is considered. Level of quality of some inventions were compared. Examples of optical system calculations of the lenses applied to various tasks both in the field of the film equipment, and in the field of medicine are given. Practical recommendations about problem solving of applied optics are given.***

***Keywords: Invention, inventive problem, lens, aberrations, optical system, biomedical system, LED, laser, optimization, bandwidth.***

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