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A Correlation of Thin Lens Approximation to Thick Lens Design by Using Coddington Factors in Lens Design and Manufacturing

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Abstract: The effect of Coddington factors on aberration functions has been analysed using thin lens approximation. Minimizing spherical aberrations of singlet lenses using Coddington factors in lens design depending on lens manufacturing is discussed. Notation of lens test plate pairs used in lens manufacturing is also presented in terms of Coddington shape factors.