

Supplementary Material

How to Design a Spectrometer

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Included files are the *Zemax* files for the various stages of instrument design described in the review. The files are useful only if the user has a license to *Zemax* or a compatible program. Files are:

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| Ebert1.ZMX | Mirror conic constant – 1.403. To model with just a spherical mirror, set the conic constant to 0.0 (constant, not variable) and reoptimize. |
| Ebert1a.ZMX | Mirror conic constant – 1.228 |
| Ebert1b.ZMX | Mirror conic constant – 1.334, the final optimized design. |
| Ebert2.ZMX | In-plane design where diffracted beams strike the diffraction grating. Because only sequential ray-tracing was employed, rediffraction is not shown. |