

Re: How to build a Tessar fro UV light (250...400nm)

Source: <http://sci.tech-archive.net/Archive/sci.optics/2004-10/0698.html>

From: Klaus D Schmitt (*kds315_at_yahoo.com*)

Date: 10/30/04

Date: Sat, 30 Oct 2004 22:59:24 +0200

Hi Bob,

I know your site very well and especially the UV site. I did some experiments with various single fused silica lenses but did not like the results. Pinhole is also no solution since the exposure just takes too long.

You're right about the EL-Nikkors and other no or single coated lenses, they do transmit down to 350nm, I did some measurements with a 365nm and 254 nm Mercury line lamp(s) and suitable filters. But you can't use these lenses at 254nm, where I would like to work. So either mirror lenses or CaF₂ / SiO₂ remain. That is my question here. [And I do know Bjoern Roerslett's work also...and Jan-Willems site on it]

Thanks

Klaus

"Bob Monaghan" <rmonagha@engr.smu.edu> schrieb im Newsbeitrag news:clv64b\$ru1\$1@blaze.seas.smu.edu...

>

> *depends on what you need to do, obviously, but a lot of users (e.g., some biological studies, art forgeries, document analysis..) only need long-wave UV, and many conventional older (non-UV absorbing adhesives used) glass lens designs will work down to 360 nm or so, see my notes at*

>

> <http://medfmt.8k.com/mf/uv.html>

>

> *for UV down to 250nm, if you really need it, a surprisingly decent and cheap (for quartz optics) solution may be a "soft-focus" single element lens design, again see above URL Edmund Scientific presumably still sells quartz elements, and with a waterhouse stop, this can yield surprisingly decent results at under \$100 US\$ costs, not counting the filters needed...*

>

sci.optics: Re: How to build a Tessar fro UV light (250...400nm)

> *regards – bobm*

>

> --

> *****

> * *Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275* *

> ******Standard Disclaimers Apply******