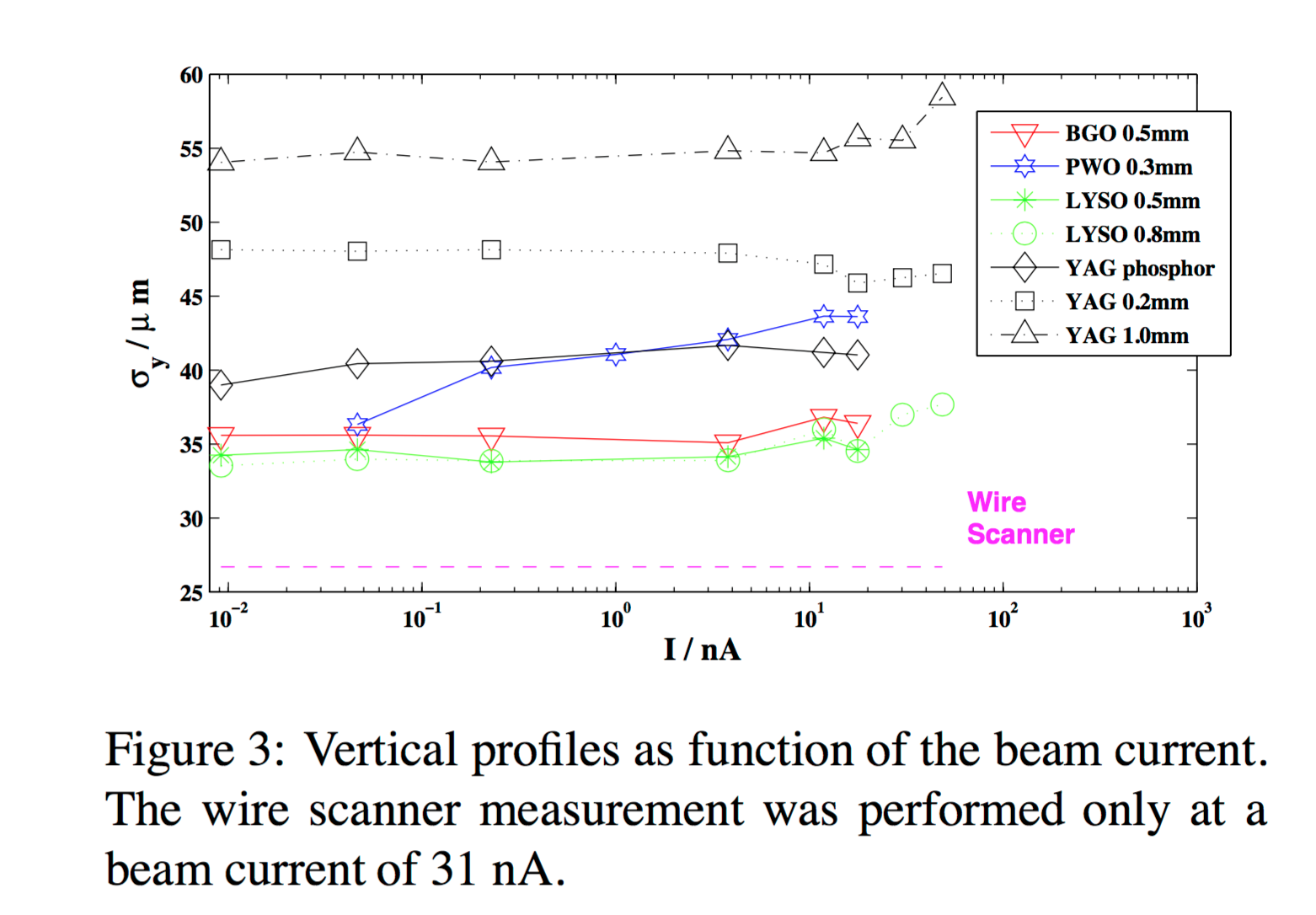
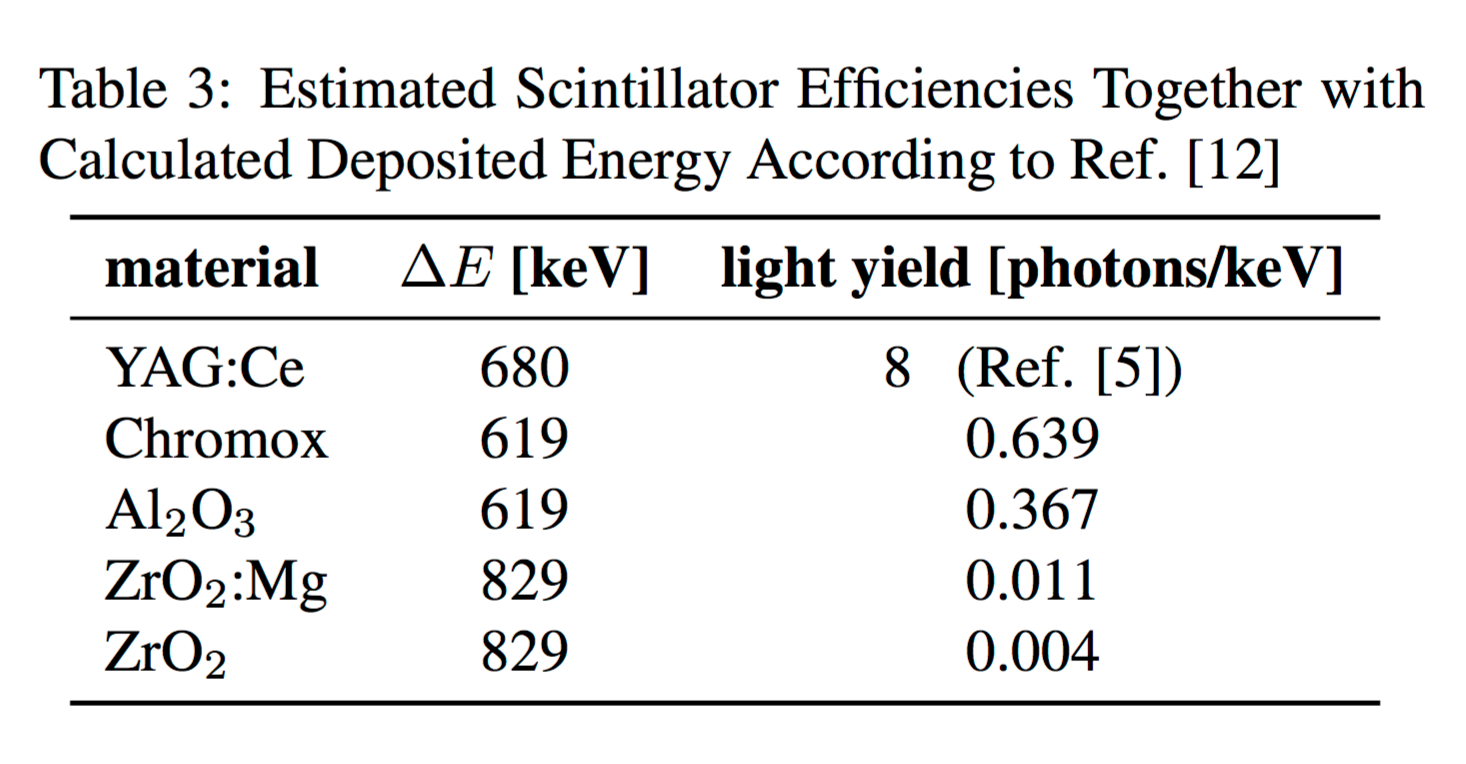
**TIME-RESOLVED IMAGING FOR THE APS LINAC BEAMS** <http://aps.anl.gov/News/Conferences/1998/LINAC98/papers/TU4059.pdf>

|  |  |  |
| --- | --- | --- |
| Common Name | Chromox | YAG |
| Material | Al2O3:Cr | Y3Al5O12:Ce |
| Thickness | 0.25 mm | 0.50 mm |
| Beam energy | 600 MeV | 600 MeV |
| Spatial Resolution @ 30mA peak current  (43.2 nA) | 200 um | 30 um |
| Spatial Resolution @  200 mA peak current  (288 nA) | 200 um | 100 um |
| Time Response | 300 ms | 80 ns (80%)  300 ns (20%) |
| Intensity (a.u.) | ~1 | ~1 |
| Blurring threshold |  | 0.2-0.3 pC/um^2 |

**RESOLUTION STUDIES OF INORGANIC SCINTILLATION SCREENS FOR HIGH ENERGY AND HIGH BRILLIANCE ELECTRON BEAMS** <https://accelconf.web.cern.ch/accelconf/IPAC10/papers/mopd088.pdf>



**INVESTIGATION OF THE LIGHT YIELD OF LUMINESCENT SCREENS FOR HIGH ENERGY AND HIGH BRILLIANT ELECTRON BEAMS** <https://accelconf.web.cern.ch/accelconf/d09/papers/tupd39.pdf>



**YAG:C**e **SCREEN MONITOR USING A GATED CCD CAMERA**

<http://www.slac.stanford.edu/econf/C140914/papers/tupd08.pdf>

* Blurring threshold ~ 0.25 pC/um^2
* Resolution vs. thickness
* Crystal vs. Ceramic (powered)

**LIMITATIONS ON THE RESOLUTION OF YAG:CE BEAM PROFILE MONITOR FOR HIGH BRIGHTNESS ELECTRON BEAM**

<https://www.bnl.gov/atf/pubs/YAGmon.pdf>

* Thorough article describing the physical effects limiting beam size measurements using YAG:Ce. Distinguished between multiple scattering, bremsstrahlung and charge field effets.