| Parameter | Name in ratdb | Measured (yes/no) | Comment | Reference |
|---|---|---|---|---|
| Light yield | LIGHT_YIELD | yes | (95 ± 10) photons/MeV (95 used in rat) | https://doi.org/10.1140/epjc/s10052-020-8418-4 |
| Rayleigh Scattering | RSLENGTH | yes | ~40m at 500nm | private communication with BNL |
| Absorption Length | ABSLENGTH | no | combination of BNL data for LABPPO and Pope+Smith for water | |
| Refractive index | RINDEX | yes | | private communication with BNL |
| Reeemission probability | REEMISSION_PROB | no | 0.8 for w< 345nm, 0 for w >370 | |
| Scintillation rise time | SCINT_RISE_TIME | yes | | |
| Scintillation time profile for betas | SCINTWAVEFORM | yes | | https://doi.org/10.1039/D0MA00055H |
| Scintillation time profile for alphas | SCINTWAVEFORMalpha | no | used same as SCINTWAVEFORM | |
| Birk's constant for betas | SCINTMOD | no | SNO+ (measurements for WbLS undergoing) | |
| Birk's constant for alphas | SCINTMODalpha | no | SNO+ (measurements for WbLS undergoing) | |
| Birk's constant for neutrons | SCINTMODneutron | no | SNO+ (measurements for WbLS undergoing) | |
| Scintillation emission spectrum | SCINTILLATION | yes | | https://doi.org/10.1039/D0MA00055H |
| Scintillation emission spectrum for wavelength shifters | SCINTILLATION_WLS | yes | used same as SCINTILLATION, LAB->PPO energy transfer should be non-radiative, so | |

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