EJ-204 Plastic Scintillator

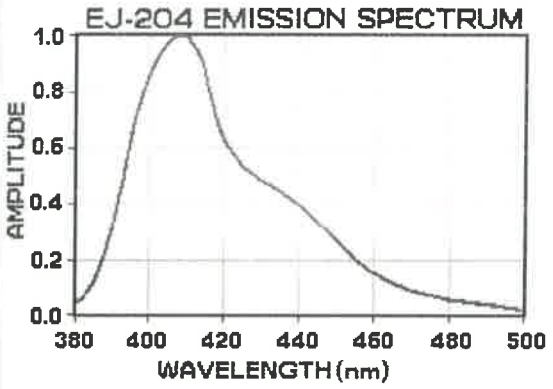
distributed by G-tech

In addition to providing the highest scintillation efficiency of any plastic scintillator, EJ-204 delivers the excellent combination of high speed and good attenuation length. It is thus particularly well suited for high performance detector systems for nuclear and high energy physics research.

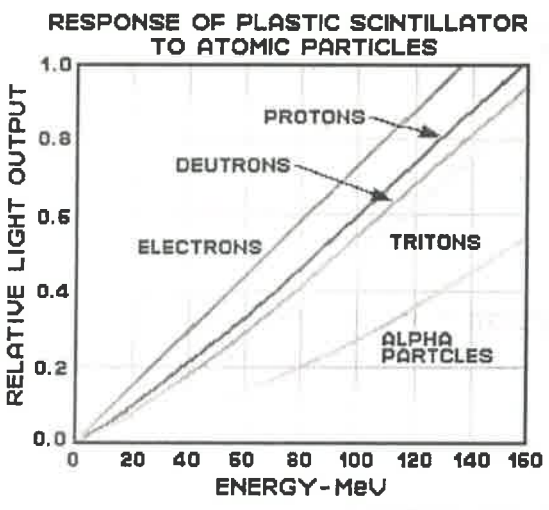
Its emission wavelength near 400 nm couples ideally with bialkali phototubes while still being long enough to be effectively used with UVT light guides. Hence, its variant, EJ-204A is particularly well suited for use with green wavelength-shifting light guide materials.

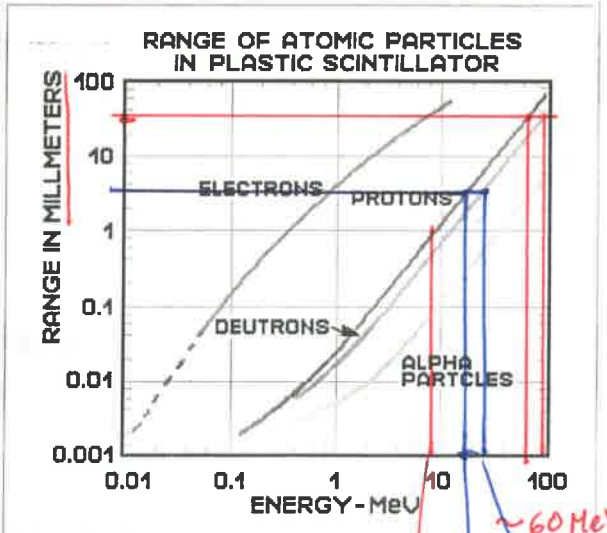
Physical and Scintillation Constants:

Light Output, % Anthracene	68
Scintillation Efficiency, photons/1MeV e^-	10,400
Wavelength of Max. Emission, nm	408
Rise Time, ns	0. 7
Decay Time, ns	1. 8
Pulse Width, FWHM, ns	2. 2
No. of H Atoms per cm^3 x 10^{22}	5. 21
No. of C Atoms per cm^3 x10^{22}	4. 74
No. of Electrons per cm^3 x 10^{23}	3. 37
Density, g / cc:	1. 032



Polymer Base:	Polyvinyltoluene
Refractive Index:	1. 58
Vapor Pressure:	Is vacuum-compatible
Coefficient of Linear Expansion:	7. 8 x 10 $^{-5}$ below +67°C
Light Output vs. Temperature:	At +60°C, L.O.=95% of that at +20°C No change from +20°C to -60°C
Chemical Compatability:	Is attacked by aromatic solvents, chlorinated solvents, ketones, solvent bonding cements, etc. It is stable in water, dilute acids and alkalis, lower alcohols and silicone greases. It is safe to use most epoxies and "super glues" with EJ-204.





G-tech, Corp. local representative in Japan
247 - 2, Hayashi 1-Chome, Tokorozawa, Saitama 359-1167
Phone# 04-2938-6001 Fax# 04-2938-6002

~60 MeV (p) → 340 MeV/c
~90 MeV (d) → 570 MeV/c
8 MeV
18 MeV
25 MeV
184.66 MeV
300 MeV
My Range