

Displacement Damage Dose in Silicon with Different Shielding Materials

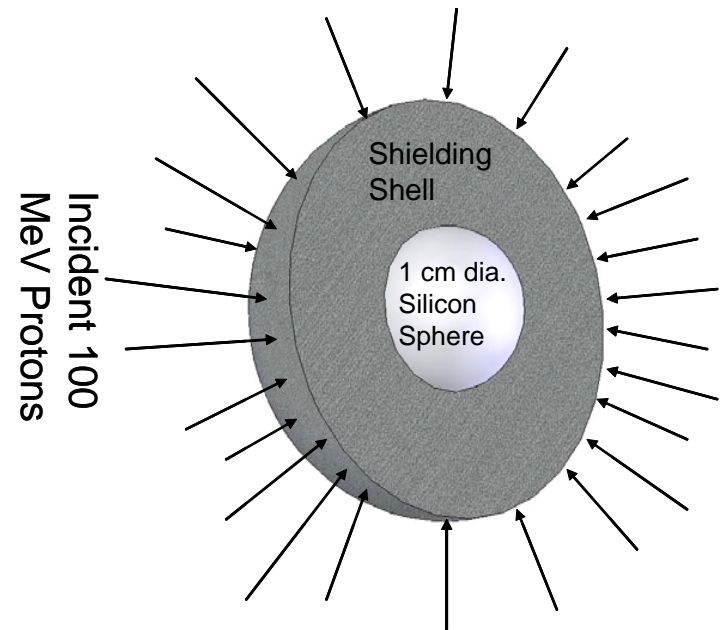
Tai Pham and Mohamed S. El-Genk

- **Motivation:**

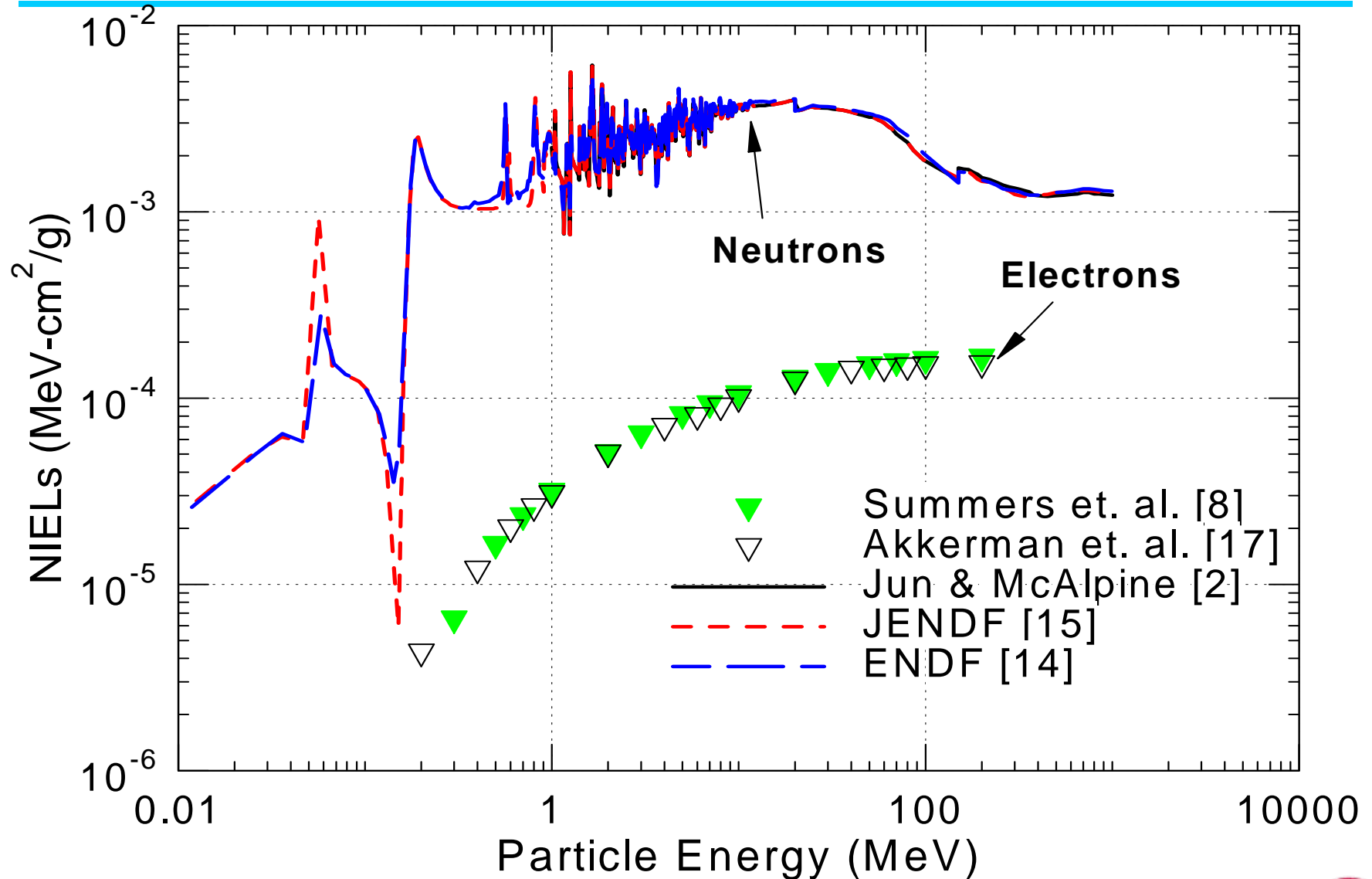
- Investigate radiation damage in materials
 - Quantify the effectiveness of potential shielding materials
- **Contribution/Results:**
 - Calculate the displacement damage dose estimates in silicon from high mono-energetic 100 MeV proton with different shielding material

- **Applications:**

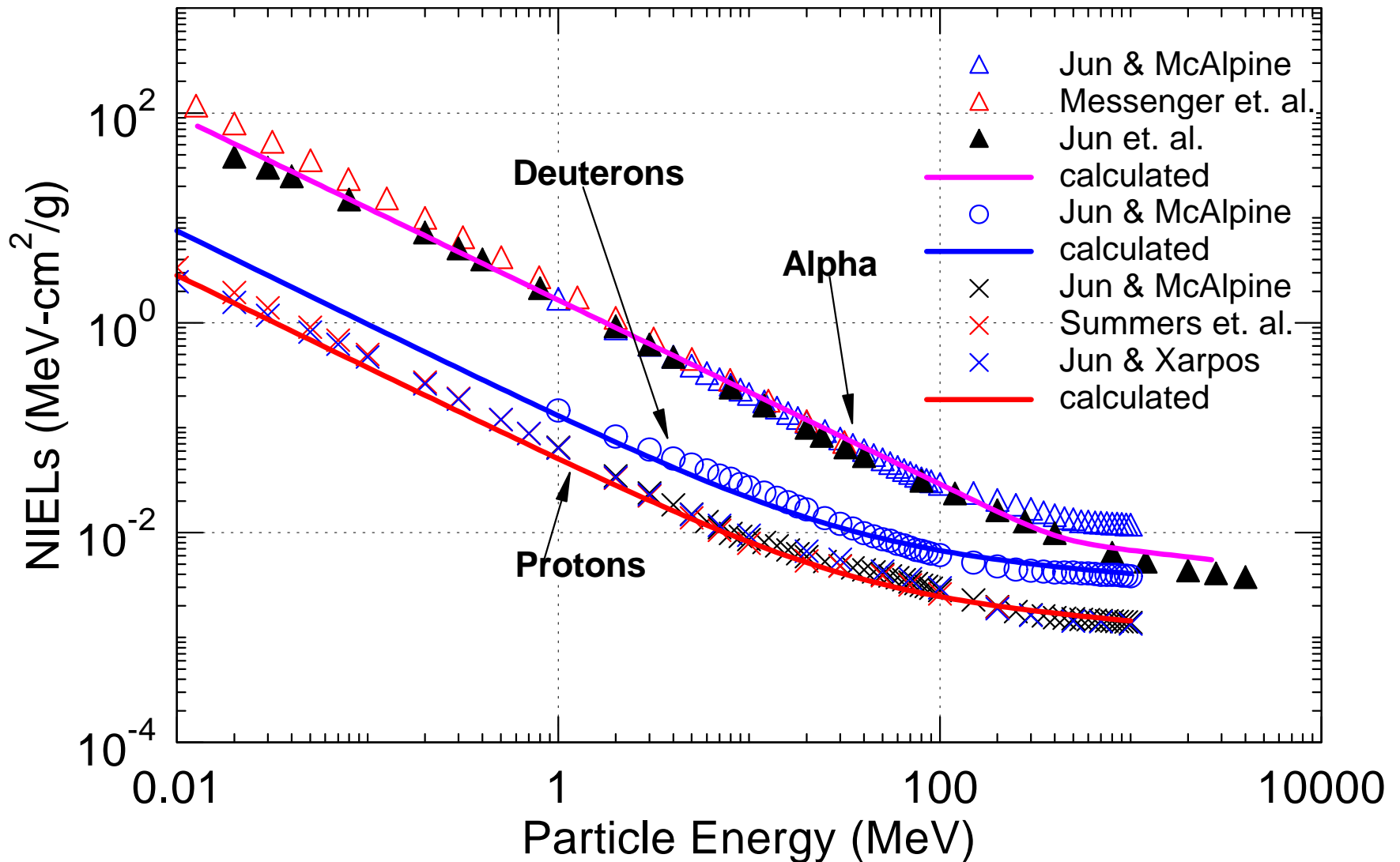
- Shielding Electronics and Silicon Devices



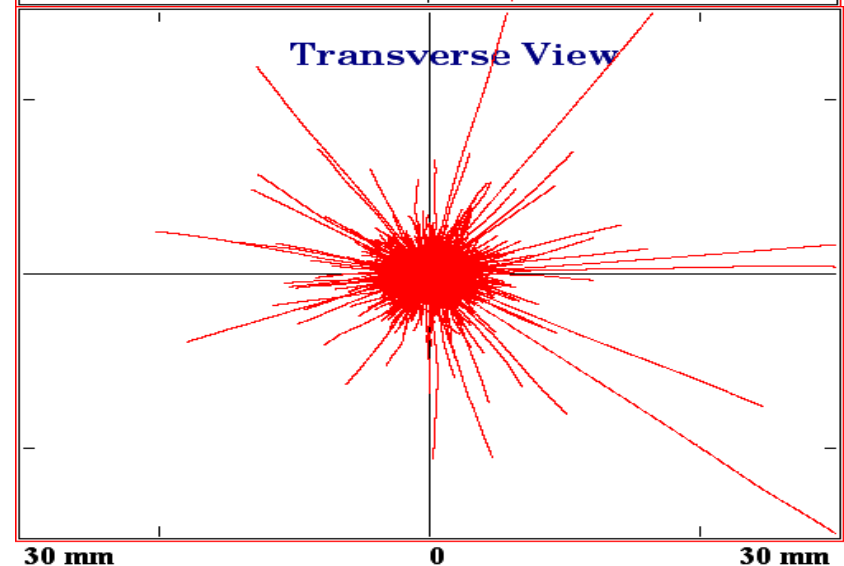
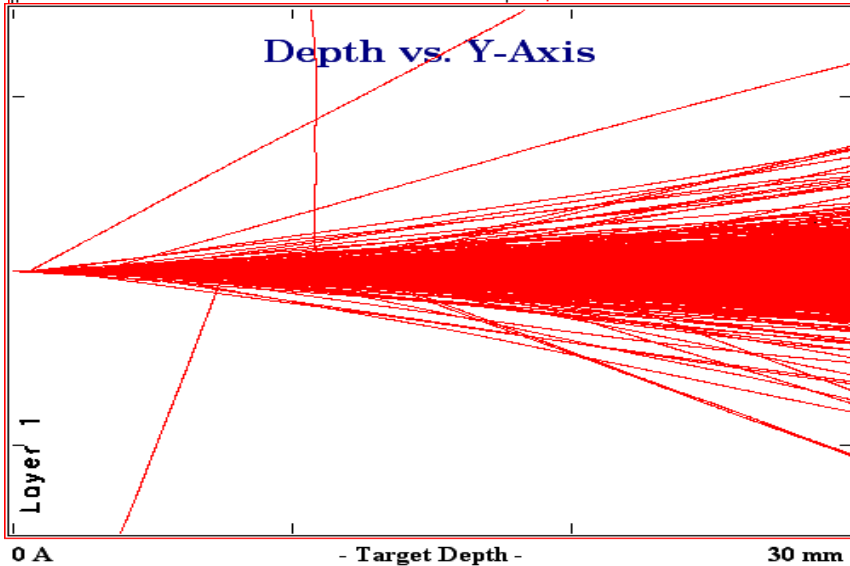
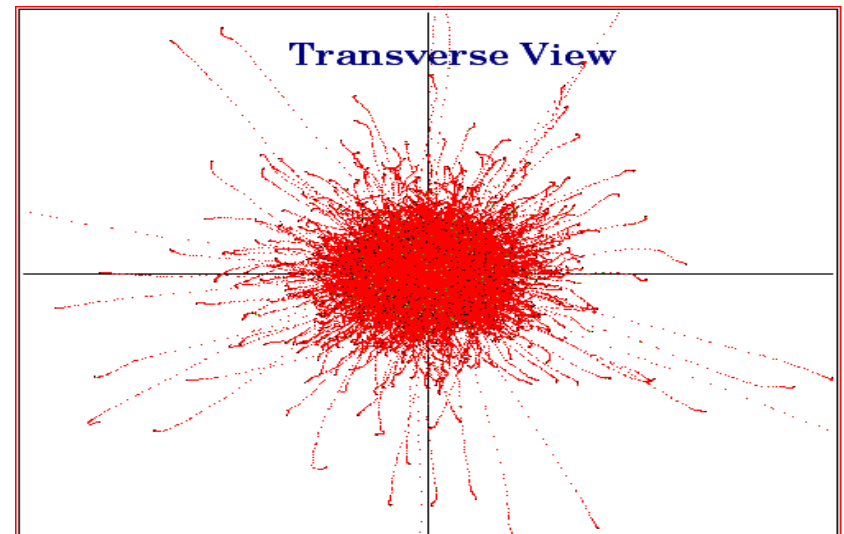
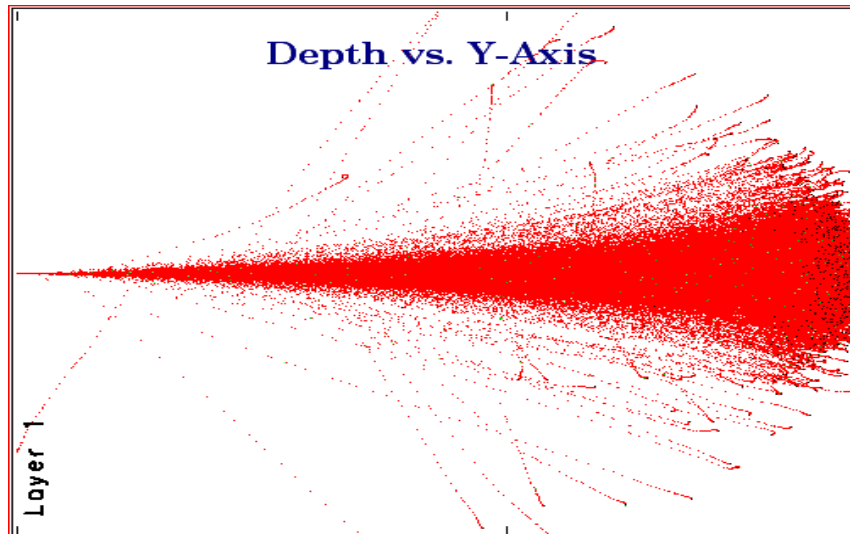
Non-Ionizing Energy Loss (NIEL)



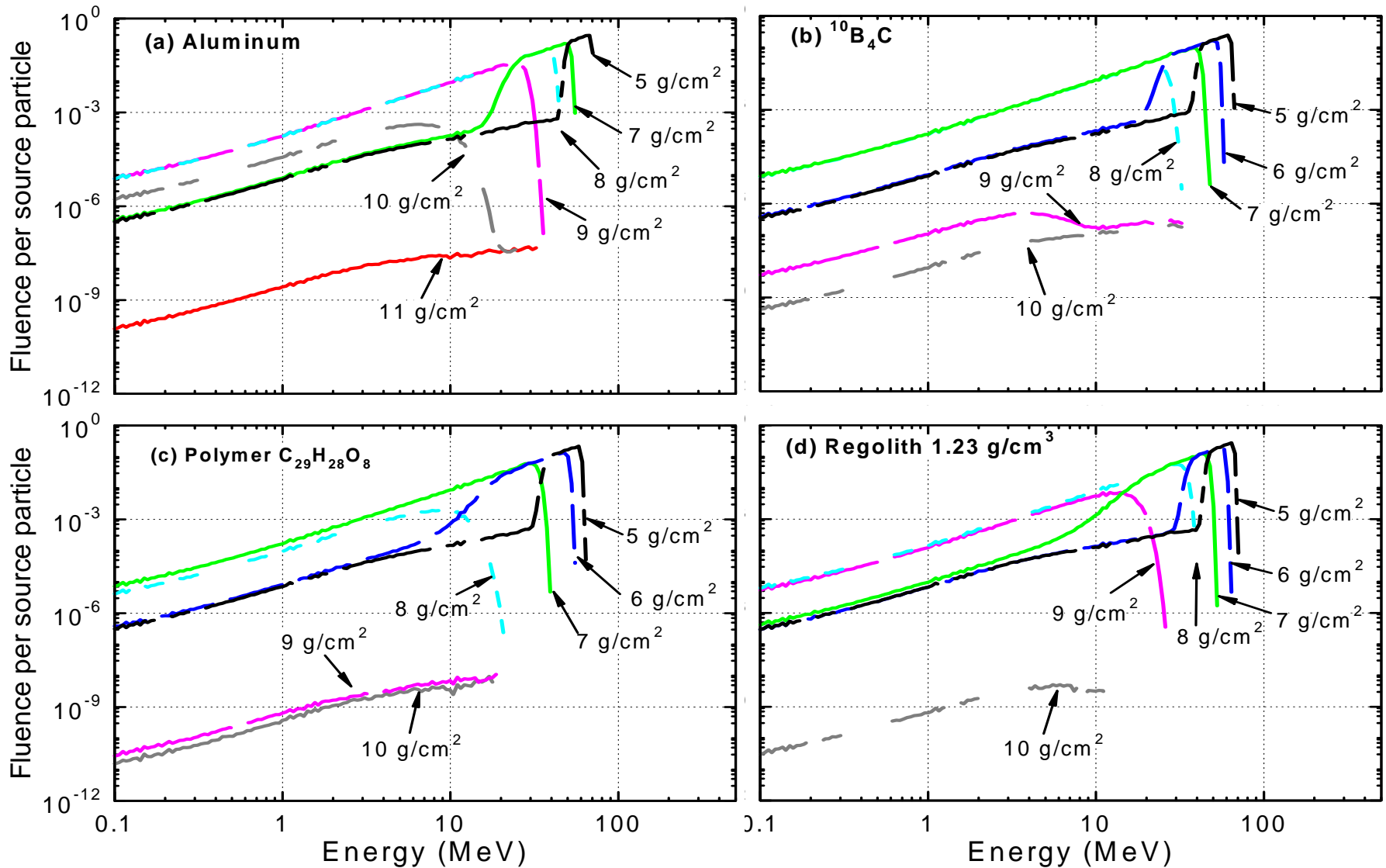
Non-Ionizing Energy Loss (NIEL)



Proton Scattering



Proton Spectrum as function of Thickness



Displacement Damage from 100 MeV Proton

