Zero Degree CALorimeters
1986-1996

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Prime users are WA80, E802, NA35

WA80: R. Albrecht, et al., Phys. Rev. **C44**, 2736 (1991)
E802: T. Abbott, et al., Phys. Rev. **C44**, 1611 (1991)
NA35: J. Bächler, et al., Z. Phys. **C52**, 239 (1991)

See also M. J. Tannenbaum, Int. J. Mod. Phys. **A4**, 3377 (1989)
R. Albrecht, et al., Z. Phys. **C55**, 539 (1992)

DESIGN GOALS

- **Detect** all projectile nucleons that **do not interact**— spectators.
- **Miss** all projectile nucleons that **do interact**— proj. participants.
- **Do not detect** any collision products!
- The Energy in a Zero Degree Calorimeter should be **Linearly** Proportional to the number of Projectile Spectators, and thus proportional to A_{proj} minus the number of interacting or "wounded" projectile nucleons.
- The ZCal should be sensitive to whether a projectle nucleon interacts but insensitive to the result of the interaction.