Short Summary of FAZIA results & Current Status of INDRA analysis

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FAZIA achievements:

▶ R&D: optimization of charge and mass detection, e.g. developing PSA method, solving the problem of channeling

“Channelled” trajectory:

“Random”:
physics results: isospin transfer (discussed in detail at the symposium in June), more recently staggering effects
Staggering in Z (or N) consists in even-Z (even-N) fragments presenting systematically higher yields with respect to the neighbouring odd-Z (odd-N) ones:

- staggering in N analysed for the first time over a rather wide range
- staggering in N larger than that in Z - why? Dependence on isospin?
Progress with INDRA data:

- all calibrations finished
- software updated
- “real” data analysis has begun:
  - comparison of final states for Pd nuclei with varying isospin
  - goal: determination of the competition between processes of evaporation, fission and multifragmentation and their dependence of isospin
Colour code:
- $N(z \geq 5) = 1$,
- $N(z \geq 5) = 2$,
- $N(z \geq 5) = 3$.

RHS: charge distribution, ZMax2 vs ZMax1 for 3 fragments

Below: Isotropy check:

$$V_{iso} = \sum_{z \geq 5} v_{\parallel}^2 - 0.5v_{\perp}^2$$
Check on angular distributions:

- Coplanarity in $\phi$ for 2 fragments
- $\theta_{\text{CM \ rel}} \approx 180^\circ$ for 2 fragments
- $\theta_{\text{CM \ rel}}$ for 3 fragments - more complicated
That's all Folks!