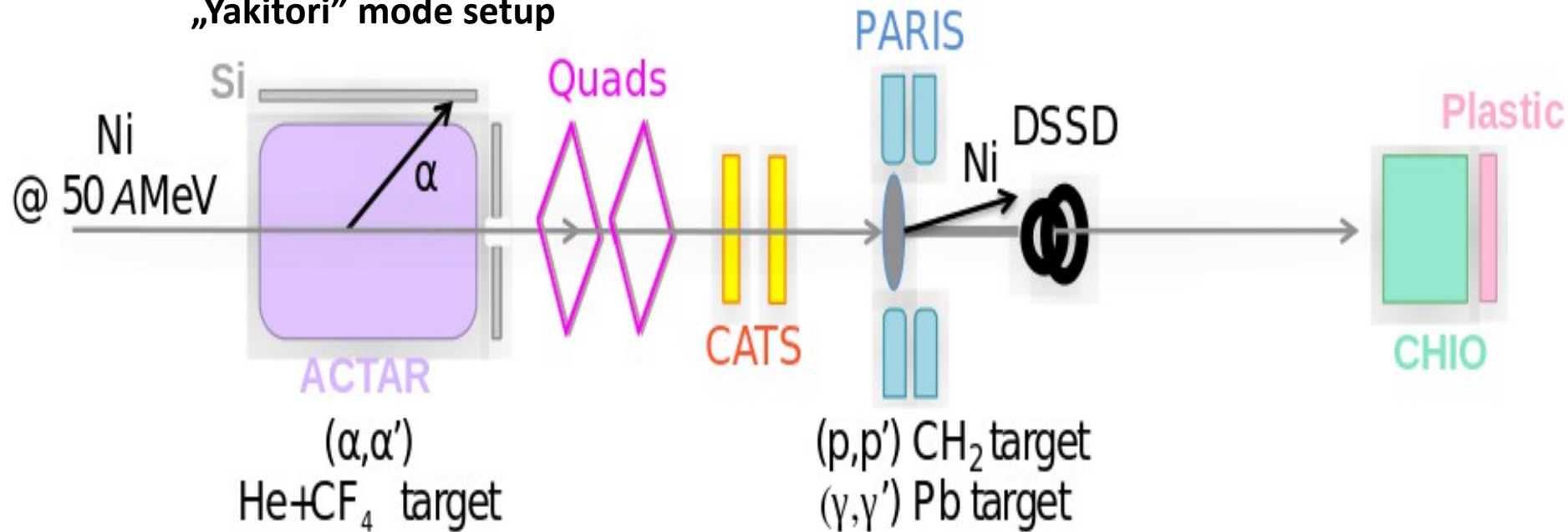


A proposal for study of giant and pygmy resonances in exotic Ni isotopes at Y. Blumenfeld, A. Maj et al. LISE

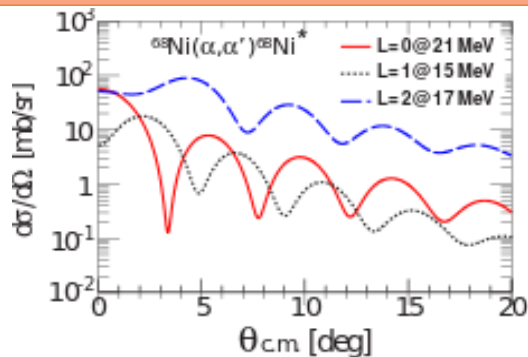
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and the ACTAR TPC collaboration and the PARIS collaboration

„Yakitori” mode setup

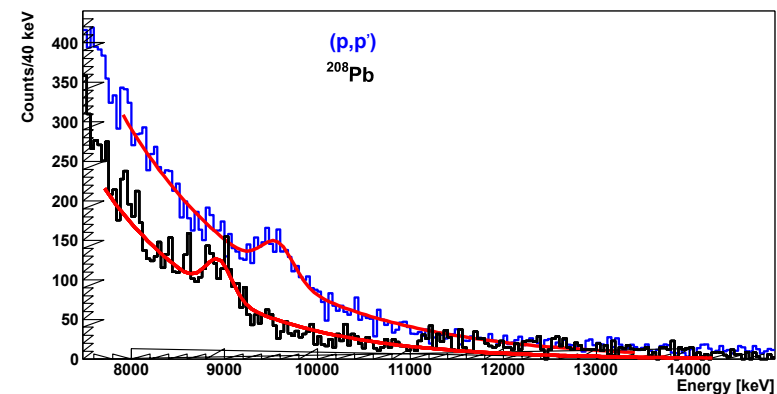


The first part of the setup will be dedicated to the measurement of ISGMR in the given Ni isotope and consists of the active target ACTAR. The (α, α') reaction is the best tool to probe the ISGMR at small angles.



The second part will be dedicated to:

- Coulomb excitation (PDR in Ni) using a Pb target
- proton inelastic scattering $(p, p'\gamma)$ (PDR in Ni) using a CH₂ target.



Not accepted

PAC decision:

Your proposal was well graded by the PAC committee. Unfortunately because of the limited available time to be allocated, it was not finally approved. The members of the PAC appreciated the quality of the proposal, and recognised the importance of characterising further the isoscalar giant monopole resonance in ^{68}Ni , first discovered at GANIL with MAYA by the present collaboration, and confirming the existence of a soft mode at lower excitation energy. It is clear that such studies are a speciality of GANIL and that future measurements with the newly developed ACTAR TPC would, in principle, provide unique results. It was also recognised that measuring a reference case of giant resonance with ACTAR such as the proposed ^{58}Ni is a necessary step.

....

The “yakitori” mode was seen as an efficient way to increase the scientific output of GANIL. The proposed parallel measurement of the pygmy resonance in ^{68}Ni via Coulomb and nuclear excitation was positively received and could have provided additional inputs for the puzzling probe-dependence of the measured excitation spectrum although considered with a lower priority compared to the ^{68}Ni (α,α') measurement. The committee recommends that you re-propose the $^{68}\text{Ni}(\alpha,\alpha')$ experiment and the reference measurement at the next PAC meeting with the hope of a more favourable result.