

I. INTRODUCTION

Already observed since several years, the experimental observation of narrow low-mass baryonic structures is not yet accepted as an evidence. This paper summarizes briefly the experiments where these structures were observed, and reanalyses other data, in order to add information on these narrow baryonic exotic resonances.

Although obtained with different physical motivations, therefore with statistical precision lower than the precision preferable for the present study, these results add information on these structures. We reanalyze here cross-sections data involving only hadrons. Indeed, the narrow structures were associated with multi-quark clusters, which may explain that they are hardly observable in reactions involving incident leptons. Concerning pion charge-exchange reactions, the statistics is too poor for the present study.

Therefore, in the present work, several spectra on baryon charge-exchange reactions are reanalyzed, and plotted as a function of the missing masses even though they were originally published as a function of the energy loss.

II. BRIEF RECALL OF PREVIOUS RESULTS

A. The SPES3 (Saturne) data

Previous experiments, performed at SPES3 (Saturne), which benefit of good resolution and high statistics, exhibit narrow structures at different hadronic masses. Only results concerning baryons are discussed here. In particular, two reactions:

$$p + p \rightarrow p + p + X \tag{1}$$

and

$$p + p \rightarrow p + \pi^+ + X \tag{2}$$

were studied [3, 4]. Structures were observed in the missing mass M_X of reaction (2), in the invariant mass M_{pX} of reaction (1), and in the invariant masses $M_{p\pi^+}$ and M_{π^+X} of reaction (2).