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Erratum: Modification of the omega-Meson Lifetime in Nuclear Matter (vol 100, 192302, 2008)

Kotulla, M.; Trnka, D.; Muehlich, P.; Anton, G.; Bacelar, J. C. S.; Bartholomy, O.; Bayadilov, D.; Beloglazov, Y. A.; Bogendoerfer, R.; Castelijns, R.

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Erratum: Modification of the ω -Meson Lifetime in Nuclear Matter
[Phys. Rev. Lett. 100, 192302 (2008)]

M. Kotulla, D. Trnka, P. Mühlich, G. Anton, J. C. S. Bacelar, O. Bartholomy, D. Bayadilov, Y. A. Beloglazov, R. Bogendörfer, R. Castelijns, V. Crede, H. Dutz, A. Ehmanns, D. Elsner, R. Ewald, I. Fabry, M. Fuchs, K. Essig, Ch. Funke, R. Gothe, R. Gregor, A. B. Gridnev, E. Gutz, S. Höffgen, P. Hoffmeister, I. Horn, J. Hössl, I. Jaegle, J. Junkersfeld, H. Kalinowsky, Frank Klein, Fritz Klein, E. Klemp, M. Konrad, B. Kopf, B. Krusche, J. Langheinrich, H. Löhner, I. V. Lopatin, J. Lotz, S. Lugert, D. Menze, J. G. Messchendorp, T. Mertens, V. Metag, U. Mosel, M. Nanova, R. Novotny, M. Ostrick, L. M. Pant, H. van Pee, M. Pfeiffer, A. Roy, A. Radkov, S. Schadmand, Ch. Schmidt, H. Schmieden, B. Schoch, S. Shende, G. Suft, V. V. Sumachev, T. Szczepanek, A. Süle, U. Thoma, R. Varma, D. Walther, Ch. Weinheimer, and Ch. Wendel

(CBELSA/TAPS Collaboration)

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We reported the measurement of the transparency ratio for ω mesons as a function of the nuclear mass number. The dependence of the transparency ratio as a function of the ω momentum was studied as well. In Fig. 4 the resulting momentum dependence of the in-medium ω width and the inelastic ωN cross section was shown. In a reanalysis of the data it was noted that the widths were erroneously given in the eigenframe of the ω meson and not in the nucleus rest frame as stated in the figure caption. As a consequence, the in-medium ω width and the inelastic ωN cross sections reported in Fig. 4 have to be divided by the relativistic factor $\gamma = \sqrt{1 - \beta^2}$, which relates the ω width in the eigenframe to the width in the nuclear rest frame. The revised version of Fig. 4 is shown below. All other results remain unchanged.

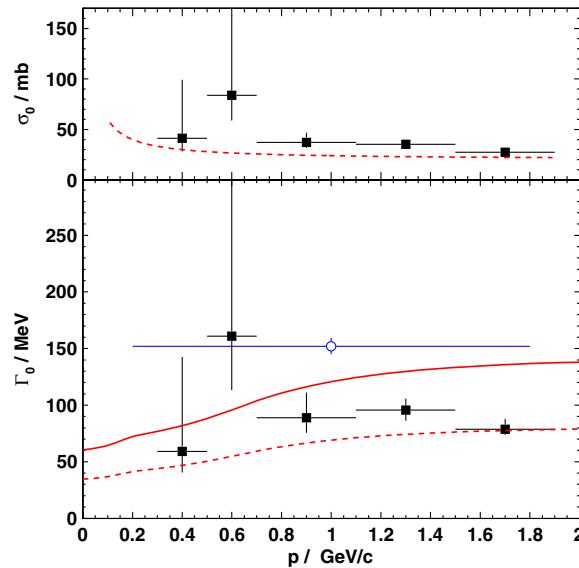


FIG. 4 (color online). Upper part: the inelastic ωN cross section extracted from the Glauber analysis (data) in comparison to the inelastic cross section used in the BUU simulation [1,2]. Lower part: width of the ω meson in the nuclear medium in the nuclear rest frame as a function of the ω momentum in a Glauber analysis (squares), from the Giessen BUU model with the inelastic cross section from the upper figure (red dashed line), and after fits to the data of Fig. 2 with the BUU simulation (red solid line) and the Valencia Monte Carlo simulation (blue circle) [3], respectively. Only statistical errors are shown.

- [1] P. Mühlich, T. Falter, and U. Mosel, [Eur. Phys. J. A](#) **20**, 499 (2004).
- [2] P. Mühlich (private communication).
- [3] M. Kaskulov, E. Hernandez, and E. Oset, [Eur. Phys. J. A](#) **31**, 245 (2007).