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RF spin resonance strength for stored polarized deuterons. M.A. LEONOVA, A.D. KRISCH, V.S. MOROZOV, R.S. RAYMOND, D.W. SIVERS, V.K. WONG, J.M. WILLIAMS, Univ. of Michigan, Ann Arbor, MI 48109-1040, A. GARISHVILI, R. GEBEL, A. LEHRACH, B. LORENTZ, R. MAIER, D. PRASUHN, H. STOCKHORST, D. WELSCH, Forschungszentrum Jülich, IKP, D-52425 Jülich, F. HINTERBERGER, K. ULBRICH, Helmholtz Inst., Univ. Bonn, D-53115 Bonn, A. SCHNASE, JAEA/J-PARC, Tokai-Mura, Ibaraki 319-1195, Japan, A.M. KONDRATENKO, GOO Zaryad Novosibirsk, 630058 Russia, E.J. STEPHENSON, IUCF, Indiana Univ., Bloomington, IN 47408-0768, N.P.M. BRANTJES, C.J.G. ONDERWATER, M. DA SILVA, Univ. of Groningen, the Netherlands — We studied the ratio of the measured to predicted rf spin resonance strengths $\varepsilon_{FS}/{}^*\varepsilon_{Bdl}$ for an rf dipole and an rf solenoid using 1.85 GeV/c vertically polarized deuterons at COSY. We measured ε_{FS} by fitting spin-flipping data to the Froissart-Stora equation, and we calculated each ${}^*\varepsilon_{Bdl}$ from each rf magnet's $\int Bdl$. We found no dependence on the beam's momentum spread or the rf frequency sweep range for either the rf dipole or solenoid. We saw an enhancement of $\varepsilon_{FS}/{}^*\varepsilon_{Bdl}$ near a 1^{st}-order intrinsic resonance for the rf dipole, but no enhancement for the rf solenoid. Except near the intrinsic resonance, the deuteron's ε_{FS} was very near ${}^*\varepsilon_{Bdl}$ for the rf solenoid, but was about 7 times smaller than ${}^*\varepsilon_{Bdl}$ for the rf dipole. (Supported by the German BMBF Science Ministry.)

M.A. Leonova

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