BP4 Chemical composition of the components of unevolved SB2 systems with equal mass components

V. F. Gopka¹, V. L. Khokhlova², A. V. Yushchenko^{3,1} and D. L. Lambert⁴

- ¹ Odessa Astronomical Observatory, Odessa National University, Park Shevchenko, Odessa, 65014, Ukraine
- ² Institute of Astronomy, Russian Academy of Sciences, Pyatnitskaya ul. 48, Moscow, 109017, Russia ³ Astrophysical Research Center for the Structure and Evolution of the Cosmos (ARCSEC), Sejong Uni-
- ** Astrophysical Research Center for the Structure and Evolution of the Cosmos (ARCSEC), Sejong University, Seoul, 143-747, Korea

Evolution of two stars with equal masses in an unevolved binary system should be similar. We can expect that the components of this type of binaries should have similar chemical composition too. This assumption, however, is questionable for the main sequence A-stars for which chemical peculiarities are common. Results of investigations of chemical composition of individual components of AR Aur, 46 Dra, 66 Eri and HD153720 had been published. They showed strong differences in abundances for some elements while for other do not.

A review of recent high resolution spectral observations of the A4-F1 binaries, which previously were considered to be normal, shows that only one of these systems can be classified as normal, the majority of the systems show some kind of peculiarity.

⁴ The W.J. McDonald Observatory, University of Texas, Austin, TX 78712, USA