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Effect of weak static magnetic field on electron and ion dynamics in low pressure capacitive discharges SARVESHWAR SHARMA, Institute for Plasma Research, Gandhinagar, Gujarat, IGOR KAGANOVICH, Princeton Plasma Physics Laboratory, USA, PREDHIMAN KAW, SANJAY MISHRA, Institute for Plasma Research, Gandhinagar, Gujarat, ALEXANDER KHRABROV, Princeton Plasma Physics Laboratory, USA, DMYTRO SYDORENKO, University of Alberta, Edmonton, Canada, INSTITUTE FOR PLASMA RESEARCH, GANDHINAGAR, GUJARAT TEAM, PRINCETON PLASMA PHYSICS LABORATORY, USA COLLABORATION, UNIVERSITY OF ALBERTA, EDMUNTON, CANADA COLLABORATION — We investigated effect of weak static magnetic field applied parallel to electrodes on capacitive discharge in helium making use of the fully self-consistent EDIPIC code. It is observed that without magnetic field both the sheaths are symmetric, but with increase magnetic field, sheath at the grounded electrode gets thinner and the sheath next to the powered electrode become broader and discharge becomes very asymmetric, similar to experimental observations of Ref.[1]. The study of ion velocity distribution functions at the electrode showed that IVDFs can be controlled by a weak magnetic field of order 20G. Reference: [1] S. J. You et al., *Thin Solid Films* 519 (2011) 6981-6989.

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