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# Latest results from the Hybrid Illinois Device for Research and Applications (HIDRA)

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The Hybrid Illinois Device for Research and Applications (HIDRA) is a toroidal fusion device at the University of Illinois. HIDRA is the former WEGA stellarator that was operated in Greifswald at the Max Planck Institut für Plasmaphysik. The machine is a five period, l = 2, m = 5 stellarator, with major radius $R_0$ = 0.72 m and minor radius r = 0.19 m. Initial heating is achieved with 2.45 GHz ECR heating at $B_0$ = 0.087 T magnetic field, which can go as high as $B_0$ = 0.5 T. HIDRA has the ability to operate as both a stellarator and a tokamak, initially operating in the stellarator mode. The focus of research on HIDRA will be to do dedicated PMI studies using the wealth of knowledge and experience at the Center for Plasma Material Interactions. In early 2016 the first experiments were started to be performed in HIDRA. This paper presents some of the initial results obtained from the machine.

## Eligible for student paper award?

Yes

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