Title:	INVESTIGATION OF WEAK MAGNETIC PROPERTIES OF FLUIDS
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Abstract:	The question of the effect of magnetic field in living organisms was moot for more than a century. Since water is a biological fluid which constitutes about 50% of the body weight of the living organisms, detecting its weak magnetic properties elucidates some of the existing unsolvable questions. Here we make use of highly sensitive liquid drop interferometry to study the rate of water evaporation subjected to a magnetic field. At 0.3 T we observe an increase in evaporation rate of 30 ± 0.05 nm/s in pure water, while pure water added with solutes such as KMnO 4 (0.02 mM), MgCl 2 (5 M), CuSO 4 (5 M) shows an increase of 17.4 ± 0.1 nm/s, 10 ± 0.1 nm/s and 18 ± 0.01nm/s respectively. High precision of the technique enable us to detect a change in evaporation rate of (3.9 ± 0.04)°A/s (1.6% percentage increase) at 10mT using frequency modulation. Application of tangential magnetic field does not affect the evaporation rate. We also calculate the volume magnetic susceptibility of water, excluding the evaporation effect.
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