

Abstract Submitted
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Artificial chemotaxis of phoretic swimmers MARIA TATULEA-CODREAN, ERIC LAUGA, Department of Applied Mathematics and Theoretical Physics, University of Cambridge — A class of artificial active particles that has received significant attention in recent years is that of phoretic swimmers. By making use of self-generated gradients (e.g. in temperature, electric potential or some chemical product) phoretic swimmers can self-propel without the complications of mobile body parts or a controlled external field. By focusing on diffusiophoresis, we will present some theoretical results on the mechanism through which phoretic particles may achieve chemotaxis and the subsequent behaviour of a dilute suspension of such particles.

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