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*Global regularity of solutions to the 4-species quadratic diffusion-reaction system in any space dimension.*

**Abstract**

We establish the boundedness of solutions of reaction-diffusion systems with quadratic (in fact slightly super-quadratic) reaction terms that satisfy a natural entropy dissipation property, in any space dimension N > 2. This bound imply the  regularity of the solutions. This result extends the theory which was restricted to the two dimensional case. The proof heavily uses De Giorgi’s iteration scheme, together with a control of a very weak norm on the density, which controls the universal scaling of the system.