Who we are

Syntetica is an early stage chemistry startup decarbonizing the textile industry through textile-to-textile recycling, starting with nylon.

Synthetic materials are made from crude oil entailing a major carbon footprint. When these materials become waste, less than 1% of them are recycled to produce new textiles. Syntetica is on a mission to eradicate crude oil from synthetic materials. We are creating a world in which the waste we generate is seamlessly recycled into the new clothes we wear and the textiles we use daily in automotive or home applications. Our mission is to create circularity in the textile industry, making net zero an achievable reality.

And the starting point is nylon. Our nylon depolymerization process is the first of its kind, capable of breaking down all nylon rich textile waste into circular virgin-equivalent nylon monomers, and separating materials such as elastane, cotton and polyester for further recycling. We are backed by the world-leading accelerator Entrepreneur First and are currently finalising our seed fundraising round. What's next? We are looking to scale our process at speed to produce recycled nylon for our customers, which already includes two of the largest fashion brands in the world.

Context

You will be Syntetica's first hire. You will have very important responsibilities from day 1 to innovate and support the scaling of our chemical process. We are looking for an extremely ambitious researcher in chemistry with a strong background in catalysis and expertise in purification processes.

As our Catalysis Researcher, you will lead efforts to improve our chemical process, from the catalytic system to the purification steps, to support the scale up. Your responsibilities will include optimising catalysts and reaction conditions to maximise efficiency and yield, optimising the purification of the resulting products to reach high purity.

You will work side by side with the founders to integrate our technology into existing industry workflows. If you want to make a strong impact on a highly ambitious early-stage start-up with a mission to decarbonise the textile industry, this job is for you.

Key responsibilities

As our first employee in this capacity, you will play a crucial role to transform our groundbreaking technology to an outstanding ready to scale process. Key responsibilities include:

- Collaborating with our team to optimise catalysts, reaction conditions, and purification processes to maximise efficiency and yield.
- Providing expertise in purification of complex compounds and developing innovative solutions.
- Helping the team in its efforts in scaling up the production process while ensuring quality control and cost-effectiveness.
What we’re looking for:

Education & background:
- A PhD in Chemistry or a related field, with a strong background in catalysis (and optionally in engineering chemistry).
- Exceptional analytical and problem-solving skills, with the ability to quickly grasp complex concepts and adapt to new challenges.
- Demonstrated autonomy and initiative in research projects, with a track record of delivering results in a dynamic environment.

Chemistry skills:
- Proven experience in purification processes, preferably in an industrial setting.
- Expertise in process optimization. Knowledge of catalytic systems, reaction kinetics would be a plus but not required.

Personal qualities:
- Strong communication skills and the ability to collaborate effectively within interdisciplinary teams.
- Demonstrates scientific rigour and meticulous attention to detail
- Shows adaptability and a commitment to continuous learning
- Possesses humility and openness to growth

Starting date: flexible, preferably 01/05/2024
Contact person for more (technical) information: Louis Monsigny (louis.monsigny@syntetica.fr).