



Job Title	Senior R&D Engineer/Scientist
Location	Supercritical HQ, West London, UK
Type	Permanent
Salary	£55-65k p.a. Depending on experience
Equity	We want our team to be invested in the business, rewarded through the creation of value. All new full time employees are invited to join our tax efficient share scheme .
Holiday	25 days + public holidays
<p>We are committed to finding the best candidates, so if you're excited by the prospect of joining Supercritical then we encourage you to apply, even if you don't meet all of the requirements. Your unique skills and experiences may be exactly what we're looking for.</p> <p>Whether you're motivated by technical challenges, opportunities for growth, or being part of a mission-driven organisation, you'll find a welcoming environment at Supercritical. We value trust and transparency.</p> <p>Supercritical is proud to foster an inclusive environment. We believe diversity drives innovation and we ensure that every team member feels welcomed, valued, and empowered to succeed. We encourage applicants of all genders, ethnicities, backgrounds, and abilities to apply and help shape the future of clean energy.</p>	
Other Benefits	<ul style="list-style-type: none">● Flexibility and Supportive of Balance (Flexible start and finish times, home working and working abroad).● Take advantage of our parental leave policy with 3 months' full pay for mothers and fathers.● Access growth opportunities with wide exposure and development support.● Receive support for training and accreditation, including professional fee coverage.● Join monthly team days and lunch outings● Celebrate key team milestones together● Pension - 3% employee contribution + 5% employer contribution● Referral bonuses
Learn more about us at the end of this document or at www.supercritical.solutions .	



The Opportunity:

Supercritical is looking for a research and development engineer that will enhance our technology team and move us towards our goals of scaling our cells and modules through advancing our core understanding of the science within our novel operating conditions.

You will be passionate about diving into complex problems to pioneer innovative and novel solutions for our challenging operating conditions, while asking “How can we do this better?”. You will come from a scientific or engineering discipline and will have a well-honed capability in research, applying your capabilities to advance product development in a structured way.

You will join an exciting and fast moving company that is intent on disrupting the energy industry and enabling a net zero future.

What you'll do:

- Characterise a wide range of metal electrodes for hydrogen evolution and oxygen evolution reactions.
- Investigate methods to increase the performance and durability of electrodes.
- Investigate manufacturing and production methods of electrodes and how they affect performance.
- Investigate corrosion tolerance of materials and develop corrosion-resistant coatings.
- Assist with the design and fabrication of electrolyser cells and modules.
- Design experiments, pioneer new test protocols and standardise operating procedures.
- Procure and manage reagents, electrochemical equipment and consumables.
- Work with external research partners to create viable technical solutions.
- Deliver project outputs on time and within budget.
- Work with grant authorities and project partners on large, complex, collaborative projects.
- Report research outputs within the company.

Direct applicants only - no agencies.

Supercritical is not currently in a position to sponsor overseas applications.



About you

Ideally, you will:

- Have experience with alkaline electrolysis systems at commercial scale.
- Be passionate about a net zero environment, excited by innovation and proactive in your pursuit of it.
- Have 2+ years of industrial experience in materials science, physics, electrochemistry or similar scientific discipline.
- Hold an MSc or BSc in a relevant discipline such as chemistry, electrochemistry or materials science.
- Bring a strong materials science background, ideally with specialisation in metal alloys and multi-metal oxides.
- Perform EIS data analysis, equivalent circuit fittings and distribution of relaxation times (DRT) analysis, draw conclusions from experimental results and present them confidently.
- Be competent at analysing and disseminating results to non-scientists.
- Perform tests, analyse and present results comfortably.
- Demonstrate strong problem-solving skills.
- Have outstanding communication skills, both written and verbal.
- Be proactive and self-motivated, taking initiative to drive towards company goals.

Desirable

- Hold a PhD in a relevant discipline such as electrochemistry or materials science.
- Have experience in corrosion chemistry.
- Density functional theory (DFT) modelling of alloys
- Experience of working with high pressure/high temperature systems.
- Have experience in start-up or scale-up environments.

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About Supercritical

Supercritical is transforming the future of green hydrogen production with the world's first high-pressure, ultra-efficient water electrolyser. Our groundbreaking technology uses heat and pressure to achieve the highest electrical efficiencies in the industry, producing hydrogen at high pressure for seamless storage and transport. By also co-producing oxygen, our innovations support decarbonisation in heavy industry, chemicals, transport, and more.

We are a well-funded team with years of runway and strong partnerships with leading global organisations. Our mission is to make green hydrogen affordable and sustainable, enabling a cleaner, more equitable future. By eliminating the costly and complex equipment required by traditional electrolysis, we are driving down the cost of green hydrogen and making it accessible to industries around the world.

We live by our values at Supercritical:

- **Purpose** in creating a legacy, driving positive change for sustainability in all we strive for
- **Transparency** in the way we work, the way we share and in our honesty.
- **Partnership** to achieve shared goals, to collaborate at all levels, to welcome challenges and different points of view
- **Trust** in our colleagues, in the rigour of our delivery, and in our respect for others
- **Leadership** in finding breakthroughs, empowering actions, innovating
- **Curiosity** in celebrating ideas, championing our passions, being positively restless

What Makes Us Proud:

- Our patented technology is redefining industry standards.
- We've demonstrated world-leading electrochemical efficiencies beyond the lab.
- We are committed to sustainability, designing systems free from PFAS forever chemicals and rare earth metals.
- We're recognised globally:
 - Featured in CleanTech Group's "Top 50 to Watch for Climate Action."
 - Named a StartUS Insights "Top 5 Zero Emission Solution to Watch."
 - Runner-up and People's Choice in Shell's 2021 New Energy Challenge.
 - Finalist in OZ Minerals' Hydrogen Hypothesis.
 - Highlighted in CEMEX Ventures' Most Promising CleanTech Solutions.
 - Listed among Start Up Energy Transition's "100 Most Promising Global Energy Startups."

At Supercritical, we believe that innovation thrives when diverse perspectives come together. We're building a collaborative, inclusive team to create ultra-efficient, cutting-edge solutions for a sustainable future. Join us in solving some of the world's toughest energy challenges and making a real impact on the path to net zero.

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