

PYROMANE

THE GREEN SCIENTIST

Pyrowave presents to you a series of interviews with its employees in order to better know the faces of those who are the driving force of the firm. The star of the day star is **Amir Enferadi Kerenkan**, **R&D specialist**.



Virginie Bussières: Amir, you are a R&D specialist at Pyrowave since 2020. What is your background?

Amir Enferadi Kerenkan: I got my PhD in chemical engineering from Laval University in 2018. I am a nonmaterial and sustainable chemistry specialist, with several years of experience in studying green chemistry processes, nonmaterial synthesis, and characterization and analytical techniques. **Green chemistry** is about designing products in a sustainable

way, it means considering waste prevention and eliminating the use and/or generation Green catalysts of hazardous materials. After my PhD, I did one year of postdoctoral Green chemistry studies at McGill Green and renewable Efficient process University Department of Chemistry. After Environmentally benign products that, just before joining Pyrowave, I was a research

Kingston, Ontario, where I was directed a small and crossfunctional technical team for about a year.

scientist at Grafoid company in

V.B: What made you apply to Pyrowave?

A.E.K: First, the topics we are working on are very hot topics these days, circular economy, low-carbon economy, you hear these words in everyday news. And secondly, when I was in

process to join Pyrowave, I felt the company had positive and essential aspects, like in terms of human resources and of equipment resources. So, it seemed very interesting and stimulating to join Pyrowave.

V.B: What is the job of a R&D specialist at Pyrowave?

A.E.K: Generally, my job involves exploring new potential paths for electrifying chemical processes in industry, performing literature review, designing and conducting experimental phase with of course the help from team members. In March, I also participated in the Solid Waste Management Conference, and we plan to take part in more conference and to publish more papers because it is a very interesting part of research, publishing your results and sharing them with other people all around the world in order to advance our field.

V.B: What stimulates you the most in your daily work?

A.E.K: I am a nature-drive person, so I love to contribute to this increasingly important field, to keep the world green for next generations. It seems redundant to talk about how urgent and interesting this area is but in a very simple way imagine a weekend in the future when you decide to go to nature for hiking or fishing, and the government announces that people cannot do those activities because nature is filled with industrial or domestic waste. It is something if we don't pay attention, it will happen. So, we should try all around the world to prevent that day from happening.

V.B: What is innovation? How do you conceive it?

A.E.K: Innovation is thinking outside of the box, thinking unconventionally or from a perspective that other people don't have. We are pioneering a technology, so we must be innovative because several things have not been explored yet. We have to create things, to find a way to solve the problem

V.B: What are the main daily challenges that you're facing every day?

A.E.K: Working with a new technology is not like a routine activity, it is more like a process with ups, downs, successes, failures, and challenges. This is extremely exciting for me because every day I can learn, I can teach, I can explore. Every day is different from the previous one. This is the nature of working at Pyrowave. For example, in the lab, we used to do our experiments with a domestic microwave, and it had its own problems.

But recently we developed a microwave reactor for the lab. We had kind of a challenge to either buy a new reactor or build one. And finally, we decided to build a reactor because it gives us more flexibility, we can apply the changes we want. This new reactor is a big milestone, we can change the future. And we are still working on optimizing this reactor. And we are definitely a team, in its full capacity meaning. If there is any

problem, the team and your boss are always there to support you. It helps you pass failures, learn more, and finally get success. And let me finish by an example. There is a famous song called "You will never walk alone". I am a fan of soccer and I know that Liverpool fans, when they want to encourage their team in the stadium, they always put this song. It is the kind of thing that happen every day at Pyrowave team too. You will never walk alone.

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Amir Enferadi Kerenkan, R&D specialist

V.B: What advice would you give to young men or women who start in R&D, and who want to do research in the environmental field?

A.E.K: The first thing I would say is to be patient in research. If you expect success in a short time, your project might fail. We should do a lot of experiments to have good results in a project. Two other important things are time management and keeping records of your project. And these things are all respected and considered at Pyrowave.

V.B: How do you see the future: for you, for Pyrowave, and for society?

A.E.K: For me and for Pyrowave, I think the future is very green, bright, and promising. At Pyrowave as I said, we have a great teamwork, it arises not only from great people but also from multi-dimensional expertise and skills in the team, from an excellent distribution of human resources. At Pyrowave, we are like a circle, and we are developing all the faces of the circle. And for society, I think it's beyond the scope of my knowledge to talk about it, but I hope for a green world, chemistry-wise and life-wise for all around the world, for all the societies.

V.B: Aside from your passion for research, what are your hobbies?

A.E.K: As I said earlier, I love nature, hiking, doing outside activities. Also, I'm a fan of soccer, so playing soccer, tennis and reading books sometimes, in my leisure time.

