

Press Release

2023-28-11

HyPhoX wins the Berlin Brandenburg Innovation Award IHP spin-off develops digital rapid test for on-site analyses

Frankfurt (Oder). In the competition for the Berlin Brandenburg Innovation Award 2023, the HyPhoX team triumphed in the final on 24 November 2023. The current spin-off project of IHP - Innovations for High Performance Microelectronics in Frankfurt (Oder) is one of the five companies awarded this year. The digital rapid test developed by HyPhoX won over the jury and prevailed against over 100 other applications.



The HyPhoX team at the Berlin Brandenburg Innovation Award ceremony
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Since the coronavirus pandemic, everyone has been familiar with rapid medical tests and PCR laboratory analyses. It is also known that laboratory tests are a time-consuming and expensive procedure and that classic rapid tests do not provide quantitative results. This is where the HyPhoX team comes in: They combine the advantages of both worlds in a digital rapid test. Their photonic biosensor can detect bacteria, viruses or proteins in liquids within a few minutes. The AI-supported analysis of the measurement data enables long-term trend analyses in order to

optimise process monitoring and quality control. HyPhoX impressed the Innovation Award jury with its solution to current challenges. Among other things, the explanatory memorandum stated: "HyPhoX, a spin-off of the renowned IHP, has created a remarkable technological achievement in the form of an analysis tool [...]. This innovation combines optical, electronic and biochemical components on a microchip with impressive integration density. [...] Thanks to the use of silicon-based semiconductor technology, cost-efficient mass production is also possible."

HyPhoX has its technological roots at IHP. This is where the original research and development work took place, on which the company's core expertise is based. The spin-off project is currently based at TH Wildau, where the technology is being continuously developed as part of an EXIST research transfer, utilising the laboratory conditions available there and being continued as a research topic in the Joint Lab of IHP and TH Wildau.



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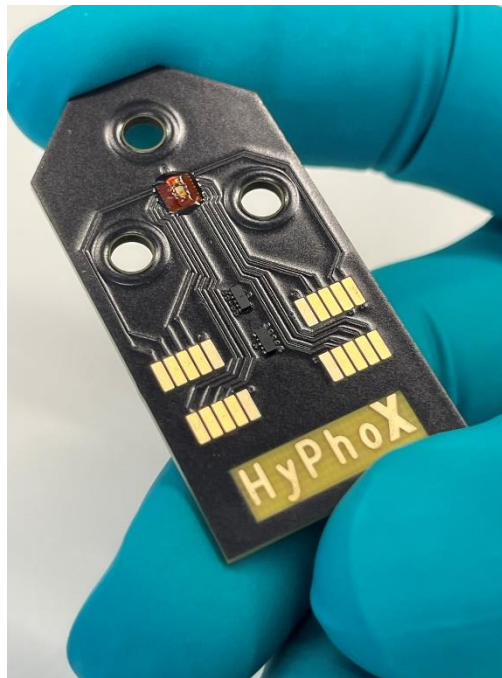


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Every year, the states of Berlin and Brandenburg honour innovative and outstanding entrepreneurial work with the Innovation Award. The promotion and presentation of future-oriented and marketable developments by start-ups or spin-offs is at the centre of this. The prize provides the HyPhoX team with the further boost it needs. "We need staying power. The development of photonic biosensors is complex and resource-intensive, as it takes place at the interface of various high-tech fields such as photonics, microelectronics and biochemistry. However, with the team around Dr Patrick Steglich, Dr Martin Paul and Christoph Schumann, we have experts who can ideally implement the combination of these different disciplines," says Prof. Dr Andreas Mai, co-founder and IHP mentor. "The smooth coordination of all sub-components and their development into a system requires a high level of technical versatility, a detailed technical understanding of all sub-areas and close cooperation between the HyPhoX and IHP teams in the future," adds project manager Dr Patrick Steglich.



Small and handy: the mobile sensor platform developed by HyPhoX
© HyPhoX 2023

The Innovation Award is already the second award for the HyPhoX team: In 2021, they won the 7th Leibniz Start-Up Prize. HyPhoX is currently funded by the EXIST funding programme of the Federal Ministry for Economic Affairs and Climate Action, which is aimed at scientists from non-university research institutions who want to realise a business idea for an innovative product.

Further information:

- About the Innovation Award: www.innovationspreis.de/english/
- About HyPhoX: www.hyphox.com



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About IHP:

The IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultrahigh frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. The IHP employs approximately 365 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25 μm SiGe BiCMOS technologies, located in a 1500 m² DIN EN ISO 14644-1 3 certified clean room.

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