12 October 2023

Carbios demonstrates superior performance of its enzyme in world-renowned scientific publication

- **The publication in *ACS Catalysis*, one of the world's most influential scientific journals, compares the four best performing enzymes for PET degradation under industrial conditions and confirms the superior performance of Carbios' enzyme**

- **Carbios proposes an international standardized method for enzyme comparison thereby confirming its position as the world leader of enzymatic PET depolymerization**

- **Since the publication of the LCC^{ICCG} enzyme in the journal *Nature* in 2020, three years of R&D has optimized its performance to produce a new, more efficient generation of enzyme that will be used in the world's first PET biorecycling plant**

Clermont-Ferrand, France, 12 October 2023 (06:45 AM CET). Carbios (Euronext Growth Paris: ALCRB), a pioneer in the development and industrialization of biological technologies to reinvent the life cycle of plastics and textiles, announces **the publication in ACS Catalysis, one of the world's most influential scientific journals** (Impact Factor 13.7), of an article entitled *"Assessment of Four Engineered PET Degrading Enzymes Considering Large-Scale Industrial Applications."* **The article demonstrates that Carbios' enzyme LCC^{ICCG} (published in Nature in 2020) outperforms all three competitors** considered most promising in scientific literature: two variants of the IsPETase enzyme produced by *Ideonella sakaiensis* described by the University of Manchester and the University of Austin (Texas) and a variant of PES-H1 (also known as PHL7) described by the University of Greifswald. By using a standardized method for comparing PET degrading enzymes under industrial conditions, Carbios and Toulouse Biotechnology Institute (TBI) validate the superior performance of Carbios' enzyme and confirm Carbios' leadership in the field. Moreover, since 2020, Carbios has significantly enhanced the enzyme used in this article, further extending its lead. This next-generation enzyme (results not yet published) will be used in the world's first PET biorecycling plant due for commissioning in 2025.

By collaborating with renowned enzymologists, Prof. Uwe Bornscheuer (University of Greifswald), and Prof. Gert Weber (Helmholtz-Zentrum Berlin), **Carbios mobilizes expertise to accelerate the biological recycling of PET.**

Click the following link to read the publication: https://pubs.acs.org/doi/epdf/10.1021/acscatal.3c02922

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About Carbios

CARBIOS is a biotech company developing and industrializing biological solutions to reinvent the life cycle of plastic and textiles. Inspired by nature, CARBIOS develops enzyme-based processes to break down plastic with a mission to avoid plastic and textile pollution and accelerate the transition to a circular economy. Its two disruptive technologies for the biorecycling of PET and the biodegradation of PLA are reaching industrial and commercial scale. Its biorecycling demonstration plant has been operational since 2021 and construction work of the world's first industrial biorecycling plant is expected to restart between June and September 2025, subject to the necessary additional funding. CARBIOS, founded by Truffle Capital, has received scientific recognition, notably with the cover of *Nature* and a second article published by *Nature*, and is supported by prestigious brands in the cosmetics, Food & Beverage and apparel industries to enhance their products' recyclability and circularity. Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe are members of a packaging consortium founded by CARBIOS and L'Oréal. On, Patagonia, PUMA, PVH Corp. and Salomon collaborate with CARBIOS in a textile consortium.

CARBIOS is part of the B Corp™ global community of companies using business as a force for good.

Visit www.carbios.com/en to find out more about biotechnology powering plastic and textile circularity.

LinkedIn: CARBIOS / Instagram: insidecarbios

Information on CARBIOS shares:

ISIN Code: FR0011648716
Ticker Code: Euronext Growth: ALCRB
LEI: 969500M2RCIWO4NO5F08

CARBIOS, founded in 2011 by Truffle Capital, is eligible for the PEA-PME, a government program allowing French residents investing in SMEs to benefit from income tax rebates.

https://www.carbios.com/newsroom/en/carbios-demonstrates-superior-performance-of-its-enzyme-in-world-renowned-scientific-publication/

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