



International Journal of
Molecular Sciences



Special Issue Reprint

Plant Proteomic Research 4.0

www.mdpi.com/books/reprint/4878

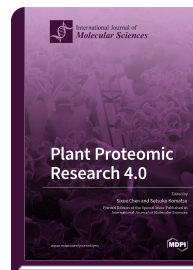
Edited by

Sixue Chen

Setsuko Komatsu

ISBN 978-3-0365-2662-1 (Hardback)

ISBN 978-3-0365-2663-8 (PDF)



As an important tool of systems biology, proteomics has enabled a deep understanding of different plant processes and functions. Complemented with genomic data, computational tools, and improved sample preparation strategies, proteomics has an unprecedented opportunity to characterize plant proteoforms in high spatial and temporal resolution. This special issue of Plant Proteomic Research 4.0 captures the recent advancements in proteomics and addresses the current challenges of plant stress response and resilience in the ever-changing climate. It contains 12 articles, including three reviews and nine original research articles. The three reviews deal with pollen phosphoproteomics, starch biosynthesis-related proteins and posttranslational modifications (PTMs) in rice developing seeds, and PTMs of waxy proteins in rice grain. The nine research articles include three related to temperature, two on water stress, two on salt stress, one on fungal pathogen, and the last one on field-grown potato apoplast proteome. The articles reflect the current frontiers of plant proteomics, focusing on themes of environmental stresses, proteoforms/PTMs, crop species, and new development in data-independent acquisition mass spectrometry. They provide readers insights into current technologies, their utility in understanding plant growth and resilience, as well as directions of proteomics in the frontiers of systems biology and synthetic biology.



Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/4878

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.