

Biology of Floral Scent



As with nearly all living creatures, humans have always been fascinated by floral scents. Yet, while we have been producing perfumes for at least 5000 years to serve myriad purposes from religious to sexual to medicinal, the limitation of our olfactory faculty has greatly hindered our capacity to clearly and objectively measure smells. Only recently have the advances been made in practical methodologies and affordable instrumentation that allow us to collect, separate, and identify those volatile compounds that have aromatic impact. These advances have led to much intensive investigation that has resulted in many highly insightful and useful discoveries.

Biology of Floral Scent provides the first comprehensive treatment of this rapidly evolving field. It reviews the impressive research being done across several disciplines, incorporating molecular biology, enzymology, chemistry, entomology, genetic engineering, and functional genomics.

Organized into a single volume covering every major aspect of floral scent research, this landmark work—

- Explores the functions and significance of scent in the interactions between plants and pollinators
- Details plant composition and enzymology, explaining how and where various scent compounds are made and how they are emitted
- Offers insight into plant evolution
- Discusses commercial applications, including the use of recently identified scent genes to genetically engineer flowers to produce new scents

Meeting the needs of plant scientists, cell and molecular biologists, natural product chemists, pharmacognosists, and entomologists, as well as students in these fields, this work provides the background, findings, and insight that will stimulate new research to further advance an understanding of floral scent biology.

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Taylor & Francis

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A CRC PRESS BOOK

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6000 Broken Sound Parkway, NW
Suite 300, Boca Raton, FL 33487

270 Madison Avenue
New York, NY 10016

2 Park Square, Milton Park
Abingdon, Oxon OX14 4RN, UK

ISBN 0-8493-2283-9

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