**IAWA Bulletin New Series - Volume 4 (2-3)**

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| **Author(s):** | Hamburg F.R.G. |
| **Title:** | **Preliminary material** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 67-78 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000399](http://dx.doi.org/10.1163/22941932-90000399) |

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| **Author(s):** | E. A. Wheeler |
| **Title:** | **Intervascular Pit Membranes in Ulmus and Celtis Native to the United States** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 79-88 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000400](http://dx.doi.org/10.1163/22941932-90000400) |

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| **Author(s):** | A. M. Catesson |
| **Title:** | **A Cytochemical Investigation of the Lateral Walls of Dianthus Vessels. Differentiation and Pit-Membrane Formation** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 89-101 |
| **Keywords:** | Vessels; cell wall; pit-membrane; lignin; cytochemistry |
| **Abstract:** | The deposition of cell wall polysaccharides and subsequent lignin incrustation were followed during vessel differentiation in carnation stems. In the secondary walls, lignin deposition was closely accompanied by an apparent loss of free vic-glycol groups from polysaccharides. This apparent loss could be related to the progressive binding of lignin molecules to cell wall carbohydrates. The intensity of lignification in mature intervessel primary walls exhibited a positive gradient from the earliest- to the latestformed metaxylem elements. Intervessel pitmembrane hydrolysis appeared as a sequential and ordered process. A partial hydrolysis of the vessel primary wall was sometimes observed in vessel-to-parenchyma pits. |
| **DOI:** | [10.1163/22941932-90000401](http://dx.doi.org/10.1163/22941932-90000401) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Review and Announcement** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 102-102 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000402](http://dx.doi.org/10.1163/22941932-90000402) |

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| **Author(s):** | M.N.B. Nair; J.J. Shah; S. V. Subramanyam |
| **Title:** | **Ultrastrucrure and Histochemistry of Traumatic Gum Ducrs in the Wood of Azadiracht A Indica A. Juss.** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 103-112 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000403](http://dx.doi.org/10.1163/22941932-90000403) |

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| **Author(s):** | Douglas J. Gardner; Fred W. Taylor |
| **Title:** | **A Technique for Observing the Exterior Morphology of Intact Vessel Conduits** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 113-117 |
| **Keywords:** | ligulate tip; Scanning electron microscope; vessel |
| **Abstract:** | A technique for examining the exterior of vessels by scanning electron microscopy is described. Features of vessels such as the union of vessel elements, the association of adjacent vessels, length of vessels, and deviations of vessels from their axial course can be studied. |
| **DOI:** | [10.1163/22941932-90000404](http://dx.doi.org/10.1163/22941932-90000404) |

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| **Author(s):** | J.T. Quirk |
| **Title:** | **Data for a Computer-Assisted Wood Identification System I. Commercial Legumes of Tropical Asia and Australia** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 118-130 |
| **Keywords:** | wood anatomy; Leguminosae; wood identification |
| **Abstract:** | A wood anatomical key based on macroscopic and microscopic features has been developed for identification of the commercial Leguminosae of southeast Asia and Australia. All anatomical details are in accord with the standard list of characters suitable for computerised hardwood identification. Data on 39 species of 13 genera are included, which have been entered into the computer data base housed at the Forest Products Laboratory. On the basis of anatomical features, all genera are separable but some species are not. |
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| **Author(s):** | Billy G. Cumbie |
| **Title:** | **Developmental Changes in the Wood of Bocconia Vulcanica Donn. Smith** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 131-140 |
| **Keywords:** | woodiness; Secondary xylem; rays; paedomorphosis |
| **Abstract:** | Developmental changes in the xylem were studied in a stem of Bocconia vulcanica Donn. Smith with a xylem radius of 3.0–4.5 cm. Growth rings are absent. The vascular cambium is nonstoried with fusiform initials averaging 282 µm long. The specialised vessel members are short, with oblique to transverse end walls, simple perforations, and alternate intervascular pitting. Vessels are relatively uniform in diameter and arrangement throughout the wood. Fibres have moderately thin walls and do not increase in length from the primary xylem to the cambium. Axial parenchyma is paratracheal, scanty to vasicentric. Rays are exclusively multiseriate, tall, and heterocellular with a predominance of erect and square cells. Sheath cells occur along the sides. There are no fibres in the secondary phloem and a periderm is not present. The xylem and bark are similar in many respects to that formed in some groups of dicotyledons that are basically herbaceous with evolution toward woodiness. |
| **DOI:** | [10.1163/22941932-90000406](http://dx.doi.org/10.1163/22941932-90000406) |

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| **Author(s):** | P. Baas; E. Werker; A. Fahn |
| **Title:** | **Some Ecological Trends in Vessel Characters** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 141-159 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000407](http://dx.doi.org/10.1163/22941932-90000407) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **The Anatomical Method - A Century Later** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 160-160 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000408](http://dx.doi.org/10.1163/22941932-90000408) |

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| **Author(s):** | Helmut Gottwald |
| **Title:** | **Wood Anatomical Studies of Boraginaceae (S.I.). I. Cordioideae** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 161-178 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000409](http://dx.doi.org/10.1163/22941932-90000409) |

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| **Author(s):** | K. V. Bhat; K. M. Bhat |
| **Title:** | **Anatomical Changes Associated With Interlocked Grain in Anacardium Occidentale L.** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 179-182 |
| **Keywords:** | vessels; fibre length; Reversal of spiral angle; cashew; rays |
| **Abstract:** | Structural changes accompanying the reversal of spirality in interlocked grain were studied in Anacardium occidentale L. The reversal of spirality sometimes occurs within a narrow zone comprising a few cell layers of the growth increment. This zone is distinguishable by numerous small vessels occurring in groups and clusters, shorter and thin-walled fibres, abundant parenchyma and wider rays densely filled with extractives. The course of vessels is irregular and their anastomosis is frequent in this zone, while adjacent to it, a tendency towards left or right spirality is evident. This tendency is more pronounced in the vessels. |
| **DOI:** | [10.1163/22941932-90000410](http://dx.doi.org/10.1163/22941932-90000410) |

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| **Author(s):** | K.M. Bhat |
| **Title:** | **A Note on Aggregate Rays of Betula Species** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
| **Pages:** | 183-185 |
| **Keywords:** | rays; Cambial injury; branch traces; birch |
| **Abstract:** | Observations were made on the presence of aggregate rays in four birch species: Betula pendula Roth, B. pubescens Ehrh., B. tortuosa Ledeb. and B. nana L. Aggregate rays rarely occur in Betula; however, when present, their occurrence is probably due to insect injuries (pith flecks) and branch traces. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 4, Issue 2-3 |
| **Publication Year:** | 1983 |
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| **Abstract:** |  |
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