

# Publikationsliste Thomas Fester

## Originalarbeiten: Pflanzliche Zellorganellen

- Thomas Fester, Wolfgang Schuster (1995) Potato mitochondrial manganese superoxide dismutase is an RNA-binding protein. *Biochemistry and Molecular Biology International* **36**, 67–75  
**Abstract: PMID 7545053**
- Wei Yu, Thomas Fester, Herrmann Bock, Wolfgang Schuster (1995) RNA editing in higher plant mitochondria: Analysis of biochemistry specificity. *Biochimie* **77**, 79–86  
**Abstract: PMID 7599280**
- Hugo Sanchez, Thomas Fester, Sebastian Kloska, Werner Schroeder, Wolfgang Schuster (1996) Transfer of *rps19* to the nucleus involved the gain of an RNP-binding motif which may functionally replace RPS13 in *Arabidopsis thaliana*. *The EMBO Journal* **15**, 2138–2149  
**Abstract: PMID 8641279**
- Thomas Fester, Elisabeth Völkle, Hainfried E.A. Schenk (1996) Purification and partial characterization of the glucose-6-phosphate-dehydrogenase from Cyanoplasts in *Cyanophora paradoxa*. *International Journal on Endocytobiosis and Cell Research* **11**, 159–176
- Thomas Fester, Hainfried E.A. Schenk (1997) Glucose-6-Phosphate Dehydrogenase Isoenzymes from *Cyanophora paradoxa*: Examination of Their Metabolic Integration Within the Meta-Endocytobiotic System. In *Eukaryotism and Symbiosis – Intertaxonic Combination versus Symbiotic Adaptation* Editors: H.E.A. Schenk, R.G. Herrmann, K.W. Jeon, N.E. Müller, W. Schwemmler; pages 243–251

## Originalarbeiten: Arbuskuläre Mykorrhiza

- Thomas Fester, Walter Maier, Dieter Strack (1999) Accumulation of secondary compounds in barley and wheat roots in response to inoculation with an arbuscular mycorrhizal fungus and co-inoculation with rhizosphere bacteria. *Mycorrhiza* **8**, 241–246
- Michael H. Walter, Thomas Fester, Dieter Strack (2000) Arbuscular mycorrhizal fungi induce the non-mevalonate methylerythritol phosphate pathway of isoprenoid biosynthesis correlated with accumulation of the "yellow pigment" and other apocarotenoids. *The Plant Journal* **21**, 571–578  
**Abstract: PMID 10758508**
- Thomas Fester, Dieter Strack, Bettina Hause (2001) Reorganization of tobacco root plastids during arbuscule development. *Planta* **213**, 864–868  
**Abstract: PMID 11722122**
- Thomas Fester, Manfred Kiess, Dieter Strack (2002) A mycorrhiza-responsive protein in wheat roots. *Mycorrhiza* **12**, 219–222  
**Abstract: PMID 12189477**
- Thomas Fester, Bettina Hause, Diana Schmidt, Kristine Halfmann, Jürgen Schmidt, Victor Wray, Gerd Hause, Dieter Strack (2002) Occurrence and localization of apocarotenoids in arbuscular mycorrhizal roots. *Plant and Cell Physiology* **43**, 256–265  
**Abstract: PMID 11917079**
- Thomas Fester, Diana Schmidt, Swanild Lohse, Bettina Hause, Michael H. Walter, Giovanni Giuliano, Peter M. Bramley, Paul D. Fraser, Gerd Hause, Dieter Strack (2002) Stimulation of carotenoid metabolism in arbuscular mycorrhizal roots. *Planta* **216**, 148–154

**[Abstract: PMID 12430024](#)**

- Stanislav Isayenkova, Thomas Fester, Bettina Hause (2004) Rapid determination of fungal colonization and arbuscule formation in roots of *Medicago truncatula* using real-time (RT) PCR.

Journal of Plant Physiology **161**, 1379–1383

**[Abstract: PMID 15658808](#)**

- Thomas Fester, Gerd Hause (2005) Accumulation of reactive oxygen species in arbuscular mycorrhizal roots.

Mycorrhiza **15**, 373–379

**[Abstract: PMID 15875223](#)**

- Thomas Fester, Victor Wray, Manfred Nimtz, Dieter Strack (2005) Is stimulation of carotenoid biosynthesis in arbuscular mycorrhizal roots a general phenomenon? Phytochemistry **66**, 1781–1786

**[Abstract: PMID 16002104](#)**

- Swanhild Lohse, Willibald Schliemann, Christian Ammer, Joachim Kopka, Dieter Strack, Thomas Fester (2005) Organization and metabolism of plastids and mitochondria in arbuscular mycorrhizal roots of *Medicago truncatula*.

Plant Physiology **139**, 329–340

**[Abstract: PMID 16126866](#)**

- Swanhild Lohse, Bettina Hause, Thomas Fester (2006) FtsZ characterization and immunolocalization in the two phases of plastid reorganization in arbuscular mycorrhizal roots of *Medicago truncatula*.

Plant and Cell Physiology, **47**, 1124–1134

**[Abstract: PMID 16854943](#)**

- Willibald Schliemann, Jürgen Schmidt, Manfred Nimtz, Victor Wray, Thomas Fester, Dieter Strack (2006) Accumulation of apocarotenoids in mycorrhizal roots of *Ornithogalum umbellatum*. Phytochemistry **67**, 1196–1205

**[Abstract: PMID 16790253](#)**

- Thomas Fester, Ingo Fetzer, Sabine Buchert, Rico Lucas, Matthias C. Rillig, Claus Härtig (2011) Towards a systematic metabolic signature of the arbuscular mycorrhizal interaction. Oecologia **167**, 913–924

**[Abstract: PMID 21643790](#)**

- Thomas Fester, Ingo Fetzer, Claus Härtig (2013) A core set of metabolite sink/source ratios indicative for plant organ productivity in *Lotus japonicus*. Planta **237**, 145–160

**[Abstract: PMID 22996195](#)**

- Thomas Fester (2013) Arbuscular mycorrhizal fungi in a wetland constructed for benzene-, methyl tert-butyl ether- and ammonia-contaminated groundwater bioremediation. Microbial Biotechnology **6**, 80–84

**[Abstract: PMID 22846140](#)**

- Anja Vogel, Thomas Fester, Nico Eisenhauer, Michael Scherer-Lorenzen, Bernhard Schmid, Wolfgang W. Weisser, Alexandra Weigelt (2013) Separating drought effects from root artefacts on ecosystem processes in a grassland drought experiment. PLOS ONE **8**, e70997

**[Abstract: PMID 23936480](#)**

- Katharina Wetzel, Gladstone Silva, Undine Matczynski, Fritz Oehl, Thomas Fester (2014) Superior differentiation of arbuscular mycorrhizal fungal communities from till and no-till plots by morphological spore identification when compared to T-RFLP. Soil Biology & Biochemistry **72**, 88–96

- Thomas Fester, Ines Merbach, Elke Schulz, Claus Härtig (2014) Metabolic response of *Medicago sativa* to severe nutrient imbalances and disturbances under field conditions. Journal of Plant Nutrition and Soil Science **177**, 245–259

## Originalarbeiten: Weitere biotrophe Pflanzen-Mikroben Interaktionen

- Thomas Fester, Howard Berg, Christopher G. Taylor (2008) An easy method for the microscopic analysis of plant biotrophic interactions.

Journal of Microscopy **231**, 342–348

- Manjula Govindarajulu, James Mitch Elmore, Thomas Fester, Christopher G. Taylor (2008) Evaluation of Constitutive Viral Promoters in Transgenic Soybean Roots and Nodules, Molecular plant-microbe interactions **21**, 1027–1035

**[Abstract: PMID 18616399](#)**

## Reviews: Arbuskuläre Mykorrhiza

- Dieter Strack, [Thomas Fester](#), Bettina Hause, Michael H. Walter (2001) Die arbuskuläre Mykorrhiza. *Biologie in unserer Zeit* **31/2001**, 286–295
- Dieter Strack, [Thomas Fester](#), Bettina Hause, Willibald Schliemann, Michael H. Walter (2003) Arbuscular mycorrhiza: Biological, chemical, and molecular aspects. *Journal of Chemical Ecology* **29**, 2047–2071  
**Abstract:** [PMID 14584670](#)
- [Thomas Fester](#) (2004) Plastiden bei der arbuskulären Mykorrhizasymbiose. In: Wurzelinduzierte Bodenvorgänge; 14. Borkheider Seminar zur Ökophysiologie des Wurzelraumes; Hrsg.: W. Merbach, K. Egle, J. Augustin. B.G. Teubner – Stuttgart, Leipzig, Wiesbaden; 39–42
- Bettina Hause, [Thomas Fester](#) (2005) Molecular and cell biology of arbuscular mycorrhizal symbiosis. *Planta* **221**, 184–196  
**Abstract:** [PMID 15871030](#)
- Dieter Strack, [Thomas Fester](#) (2006) Isoprenoid metabolism and plastid reorganization in arbuscular mycorrhizal roots. *The New Phytologist (Tansley Review)* **172**, 22–34  
**Abstract:** [PMID 16945086](#)
- [Thomas Fester](#), Swanild Lohse, Kristine Halfmann (2007) 'Chromoplast' development in arbuscular mycorrhizal roots. *Phytochemistry* **68**, 92–102  
**Abstract:** [PMID 17137610](#)
- Michael H Walter, Daniela S Floss, Joachim Hans, [Thomas Fester](#), Dieter Strack (2007) Apocarotenoid biosynthesis in arbuscular mycorrhizal roots: contributions from methylerythritol phosphate pathway isogenes and tools for its manipulation. *Phytochemistry* **68**, 130–138  
**Abstract:** [PMID 17084869](#)
- [Thomas Fester](#) (2007) Plastid reorganization in arbuscular mycorrhizal roots. In: Current Research in Plant Cell Compartments. (Ed. Benoit Schoefs), Plant Cell Organelles – Selected Topics. Research Signpost: Trivandrum, 335–354
- [Thomas Fester](#), Bettina Hause (2007) Drought and symbiosis – Why is ABA necessary for arbuscular mycorrhiza? *The New Phytologist* **175**, 383–386  
**Abstract:** [PMID 17635214](#)
- [Thomas Fester](#), Ruairidh Sawers (2011) Progress and challenges in agricultural applications of arbuscular mycorrhizal fungi. *Critical Reviews in Plant Sciences* **30**, 459–470
- [Thomas Fester](#), Julia Giebler, Lukas Y. Wick, Dietmar Schlosser, Matthias Kästner (2014) Plant-microbe interactions as drivers of ecosystem functions relevant for the biodegradation of organic contaminants. *Current Opinion in Biotechnology* **27**, 168–175  
**Abstract:** [PMID 24583828](#)
- Thomas Fester (2015) Plant metabolite profiles and the buffering capacities of ecosystems. *Phytochemistry* **110**, 6–12  
**Abstract:** [PMID 25564262](#)

## Reviews: Wurzelpflanzennematoden

- Yuhong Li, [Thomas Fester](#), Christopher G. Taylor (2008) Transcriptomic analysis of nematode infestation, In: R. Howard Berg, Christopher G. Taylor (eds.) *Plant Cell Monographs – Cell Biology of Plant Nematode Parasitism*, doi:10.1007/7089\_2008\_30, Springer-Verlag, Berlin, Heidelberg
- R. Howard Berg, [Thomas Fester](#), Christopher G. Taylor (2008) Development of the root knot giant cell, In: R. Howard Berg, Christopher G. Taylor (eds.) *Plant Cell Monographs – Cell Biology of Plant Nematode Parasitism*, doi:10.1007/7089\_2008\_30, Springer-Verlag, Berlin, Heidelberg