

# Herv Sentenac

## List of Publications by Citations

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39  
papers

4,757  
citations

29  
h-index

42  
g-index

42  
ext. papers

5,488  
ext. citations

9.1  
avg, IF

4.97  
L-index

#	Paper	IF	Citations
39	Identification and disruption of a plant shaker-like outward channel involved in K <sup>+</sup> release into the xylem sap. <i>Cell</i> , <b>1998</b> , 94, 647-55	56.2	580
38	Molecular mechanisms and regulation of K <sup>+</sup> transport in higher plants. <i>Annual Review of Plant Biology</i> , <b>2003</b> , 54, 575-603	30.7	436
37	Functional analysis of AtHKT1 in Arabidopsis shows that Na <sup>(+)</sup> recirculation by the phloem is crucial for salt tolerance. <i>EMBO Journal</i> , <b>2003</b> , 22, 2004-14	13	425
36	The Arabidopsis outward K <sup>+</sup> channel GORK is involved in regulation of stomatal movements and plant transpiration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 5549-54	11.5	328
35	Nomenclature for HKT transporters, key determinants of plant salinity tolerance. <i>Trends in Plant Science</i> , <b>2006</b> , 11, 372-4	13.1	254
34	Over-expression of an Na <sup>+</sup> -and K <sup>+</sup> -permeable HKT transporter in barley improves salt tolerance. <i>Plant Journal</i> , <b>2011</b> , 68, 468-79	6.9	191
33	Regulated expression of Arabidopsis shaker K <sup>+</sup> channel genes involved in K <sup>+</sup> uptake and distribution in the plant. <i>Plant Molecular Biology</i> , <b>2003</b> , 51, 773-87	4.6	185
32	Guard cell inward K <sup>+</sup> channel activity in arabidopsis involves expression of the twin channel subunits KAT1 and KAT2. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 3215-21	5.4	185
31	A shaker-like K <sup>(+)</sup> channel with weak rectification is expressed in both source and sink phloem tissues of Arabidopsis. <i>Plant Cell</i> , <b>2000</b> , 12, 837-51	11.6	181
30	Molecular biology of K <sup>+</sup> transport across the plant cell membrane: what do we learn from comparison between plant species?. <i>Journal of Plant Physiology</i> , <b>2014</b> , 171, 748-69	3.6	177
29	Cation channels in the Arabidopsis plasma membrane. <i>Trends in Plant Science</i> , <b>2002</b> , 7, 168-75	13.1	168
28	Expression of a cloned plant K <sup>+</sup> channel in <i>Xenopus</i> oocytes: analysis of macroscopic currents. <i>Plant Journal</i> , <b>1995</b> , 7, 321-32	6.9	154
27	Diversity in expression patterns and functional properties in the rice HKT transporter family. <i>Plant Physiology</i> , <b>2009</b> , 150, 1955-71	6.6	136
26	Plant adaptation to fluctuating environment and biomass production are strongly dependent on guard cell potassium channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 5271-6	11.5	116
25	External K <sup>+</sup> modulates the activity of the Arabidopsis potassium channel SKOR via an unusual mechanism. <i>Plant Journal</i> , <b>2006</b> , 46, 269-81	6.9	113
24	Production of low-Cs rice plants by inactivation of the K transporter OsHAK1 with the CRISPR-Cas system. <i>Plant Journal</i> , <b>2017</b> , 92, 43-56	6.9	106
23	A Shaker-Like K <sup>+</sup> Channel with Weak Rectification Is Expressed in Both Source and Sink Phloem Tissues of Arabidopsis. <i>Plant Cell</i> , <b>2000</b> , 12, 837	11.6	104

22	AtKC1, a conditionally targeted Shaker-type subunit, regulates the activity of plant K <sup>+</sup> channels. <i>Plant Journal</i> , <b>2008</b> , 53, 115-23	6.9	98
21	A grapevine Shaker inward K(+) channel activated by the calcineurin B-like calcium sensor 1-protein kinase CIPK23 network is expressed in grape berries under drought stress conditions. <i>Plant Journal</i> , <b>2010</b> , 61, 58-69	6.9	97
20	Five-group distribution of the Shaker-like K <sup>+</sup> channel family in higher plants. <i>Journal of Molecular Evolution</i> , <b>2003</b> , 56, 418-34	3.1	84
19	Inward rectification of the AKT2 channel abolished by voltage-dependent phosphorylation. <i>Plant Journal</i> , <b>2005</b> , 44, 783-97	6.9	76
18	HKT2;2/1, a K <sup>+</sup> -permeable transporter identified in a salt-tolerant rice cultivar through surveys of natural genetic polymorphism. <i>Plant Journal</i> , <b>2012</b> , 71, 750-62	6.9	68
17	Potassium transport in developing fleshy fruits: the grapevine inward K(+) channel VvK1.2 is activated by CIPK-CBL complexes and induced in ripening berry flesh cells. <i>Plant Journal</i> , <b>2013</b> , 73, 1006-18	6.9	65
16	AtKC1 is a general modulator of Arabidopsis inward Shaker channel activity. <i>Plant Journal</i> , <b>2011</b> , 67, 570-82	6.9	65
15	The rice monovalent cation transporter OsHKT2;4: revisited ionic selectivity. <i>Plant Physiology</i> , <b>2012</b> , 160, 498-510	6.6	59
14	A unique voltage sensor sensitizes the potassium channel AKT2 to phosphoregulation. <i>Journal of General Physiology</i> , <b>2005</b> , 126, 605-17	3.4	49
13	Roles and Transport of Sodium and Potassium in Plants. <i>Metal Ions in Life Sciences</i> , <b>2016</b> , 16, 291-324	2.6	46
12	Biochemical characterization of the Arabidopsis K <sup>+</sup> channels KAT1 and AKT1 expressed or co-expressed in insect cells. <i>Plant Journal</i> , <b>2000</b> , 23, 527-38	6.9	39
11	Nod Factor Effects on Root Hair-Specific Transcriptome of <i>Medicago truncatula</i> : Focus on Plasma Membrane Transport Systems and Reactive Oxygen Species Networks. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 794	6.2	34
10	Distinct amino acids in the C-linker domain of the Arabidopsis K <sup>+</sup> channel KAT2 determine its subcellular localization and activity at the plasma membrane. <i>Plant Physiology</i> , <b>2014</b> , 164, 1415-29	6.6	27
9	Regulation by external K <sup>+</sup> in a maize inward shaker channel targets transport activity in the high concentration range. <i>Plant Cell</i> , <b>2005</b> , 17, 1532-48	11.6	26
8	A Dual Role for the OsK5.2 Ion Channel in Stomatal Movements and K Loading into Xylem Sap. <i>Plant Physiology</i> , <b>2017</b> , 174, 2409-2418	6.6	21
7	Characterization of Two HKT1;4 Transporters from <i>Triticum monococcum</i> to Elucidate the Determinants of the Wheat Salt Tolerance Nax1 QTL. <i>Plant and Cell Physiology</i> , <b>2016</b> , 57, 2047-2057	4.9	21
6	Acetylated 1,3-diaminopropane antagonizes abscisic acid-mediated stomatal closing in Arabidopsis. <i>Plant Journal</i> , <b>2014</b> , 79, 322-33	6.9	21
5	Constitutive Contribution by the Rice OsHKT1;4 Na Transporter to Xylem Sap Desalinization and Low Na Accumulation in Young Leaves Under Low as High External Na Conditions. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 1130	6.2	10

4	A repertoire of cationic and anionic conductances at the plasma membrane of <i>Medicago truncatula</i> root hairs. <i>Plant Journal</i> , <b>2019</b> , 98, 418-433	6.9	5
3	Functional characterization and physiological roles of the single Shaker outward K channel in <i>Medicago truncatula</i> . <i>Plant Journal</i> , <b>2020</b> , 102, 1249-1265	6.9	4
2	The <i>Medicago truncatula</i> HKT family: Ion transport properties and regulation of expression upon abiotic stresses and symbiosis		2
1	Non-autonomous stomatal control by pavement cell turgor via the K <sup>+</sup> channel subunit AtKC1.. <i>Plant Cell</i> , <b>2022</b> ,	11.6	1