

Patents List April 05 (in Patents 2005) Updated 22 July 2006 A.David Johnson, TiNi Alloy Company

U.S. Patent No.	Date Issued	Title	Inventors	Assigned to TiNi Alloy
1) 4,055,955	November 1, 1977	Memory Alloy Heat Engine and Method of Operation	Alfred D. Johnson	
2) 4,281,513	August 4, 1981	Field Effect Memory Alloy Heat Engine	Alfred D. Johnson Paul F. Kirkpatrick	
3) 4,435,229	March 6, 1984	Method of Preparing A Two-Way Shape Memory Alloy	Alfred D. Johnson	
4) 4,490,976	January 1, 1985	Two-Way Shape Memory Alloy Heat Engine	Alfred D. Johnson	
5) 4,965,545	October 23, 1990	Shape Memory Alloy Rotary Actuator	Alfred D. Johnson	yes
6) 5,061,914	October 29, 1991	Shape-Memory Alloy Micro-Actuator	John D. Busch Alfred D. Johnson	yes
7) 5,119,555	June 9, 1992	Non-Explosive Separation Device	Alfred D. Johnson	yes
8) 5,165,897	November 24, 1992	Programmable Tactile Stimulator Array System and Method of Operation	Alfred D. Johnson	yes
9) 5,245,738	September 21, 1993	Method For Securing Together and Non-Explosively Separating Multiple Components	Alfred D. Johnson (TiNi Aerospace licensee)	yes
10) 5,325,880	July 5, 1994	Shape Memory Alloy Film Actuated Microvalve	A. David Johnson Curtis A. Ray	yes
11) 5,619,177	April 8, 1997	Shape Memory Alloy Microactuator Having An Electrostatic Force and Heating Means	A. David Johnson Barry Block Phillip Mauger	Assigned to MJB Company
12) 5,771,742	June 30, 1998	Release Device For Retaining Pin	Michael D. Bokaie John D. Busch A. David Johnson Bruce Petty (TiNi Aerospace licensee)	yes
13) 5,903,099	May 11, 1999	Fabrication System, Method and Apparatus for Microelectromechanical Devices	A. David Johnson Heinz H. Busta Ronald S. Nowicki	yes
14) 5,960,812	October 5, 1999	Fluid Flow Control Valve	A. David Johnson	yes
15) 6,470,108	October 22, 2002	Optical Switching Device and Method	A. David Johnson	yes
16) 6,533,905	March 18, 2003	Method for Sputtering SMA	ADJ, VM, VG, AB	TiNi & SMART
17) 6,614,570	Sept. 2, 2003	Shutter for Fiber Optic Systems	ADJ, D. Hice	yes
18) 6,620,634	Sept. 16, 2003	Method for Accurately Measuring Compositions of Thin Film SMA	ADJ, V. Martynov	yes
19) 6,624,730	Sept. 23, 2003	Thin Film SMA Actuated Microrelay	ADJ, V.Galhotra, V.Gupta, V. Martynov	yes

20) 6,669,795	Dec. 30, 2003	Methods of Fabricating High Transition Temperature SMA, and SMA materials Made by the Methods	A.D. Johnson, V. Martynov	yes
21) 6,729,599	May 4, 2004	Liquid Microvalve	A.D. Johnson	yes
22) 6,742,761	June 1 2004	Miniature Latching Valve	A.D. Johnson, G.Benson	yes
23) 6,746,890	June 8, 2004	Three Dimensional Thin Film Devices and Methods of Fabrication	V. Gupta, A.D. Johnson, L. Menchaca, V. Martynov	yes
24) 6,790,298	Sept. 14, 2004	Method of Fabrication of Free Standing Shape Memory Alloy Thin Film	A.D. Johnson, V. Galhotra, V. Gupta	yes
25) 7,040,323	May 9,2006	Thin Film Intrauterine Device	L. Menchaca, A.D. Johnson, V. Martynov, V. Gupta	yes