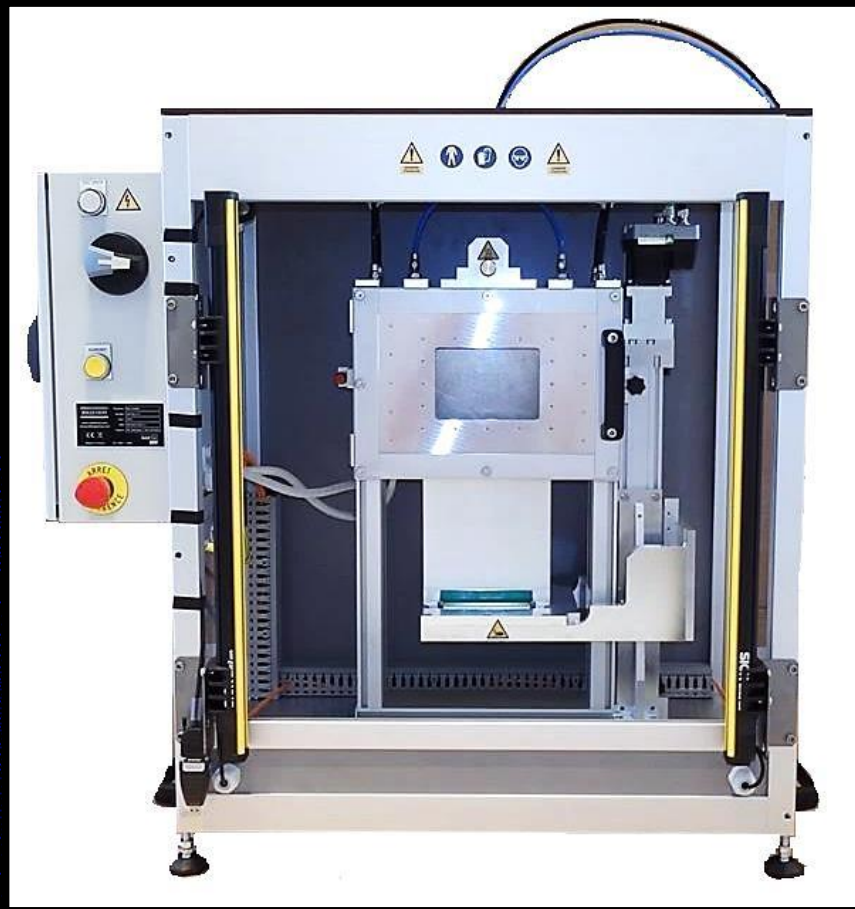
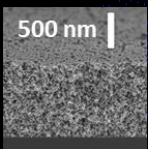
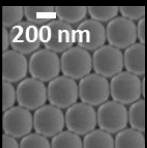
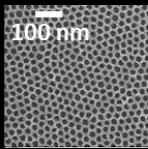
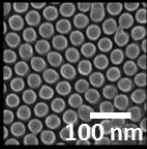


# ACEdip 2.0

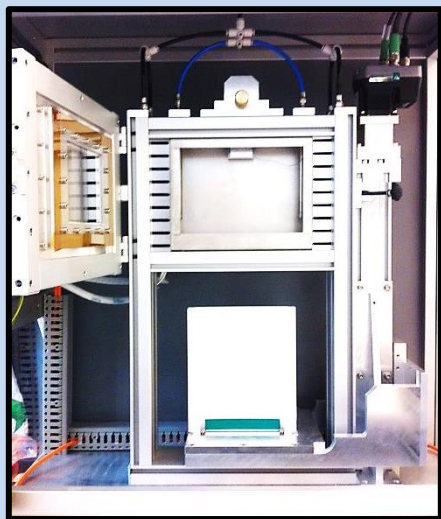
*Accurate Environmental Dip-coater*



**SOLGELWAY**

"Achieve the  
ultimate control over  
your dip-coating process"

The “Acedip” dip-coater has been developed for over 15 years of research in processing and developing sol-gel coatings in many different fields of application. It is thus equipped with the best motion system allowing very smooth solution transfer at speeds to perform from capillarity to draining regimes. The specifically sealed drying chamber (patented system) can be additionally filled with any gas and can be homogeneously heated up to 150°C so as to permit unprecedented control over evaporation. It is driven by a unique software specifically designed to program speed, temperature and atmosphere variation during the whole process (optional home made humidity controller system).



## DEVELOPPED IN PARTNERSHIP WITH



### **Key Features:**

- ▶ **Computer driven process**
- ▶ **Profiling of dipping speed**
- ▶ **Speed range : 0.0005 to 30 mm.s<sup>-1</sup>**
- ▶ **Drying chamber and solution container separation**
- ▶ **Optional temperature control (up to 150°C)**
- ▶ **Optional atmosphere control (relative humidity)**
- ▶ **Optional gas flow control device**
- ▶ **Substrate dimensions up to 11 x 13 x 0.5 cm**
- ▶ **Solution container volume from 15 to 235 mL**

Suitable for a wide variety of coatings (sol-gel, colloids, polymers, nanoparticles, nanocomposites, multilayers...): ultra thin and ultra thick coating, coating from aqueous and diluted solutions, thickness gradient, from capillary to draining regime, single substrate sampling...

**Patent pending. Patent number WO2012/007459 A1**

# ACEdip 1.0 : Technical Specifications

<b>Container Motion</b>	Motor (1) alimentation	48 V / 5 A max.
	Operating Motor Temperature	From 0 to 85 °C
	Communication Interface	RS422 / USB
	Rotor inertia	0.18 kg.cm <sup>2</sup>
	Motor axis system (2)	Ball screw drive
	Security system	End detectors x2
	Container translation speed range	$0.0005 \leq v \leq 30 \text{ mm.s}^{-1}$
<b>Heat Control (optional)</b>	Heating element (3)	Tubular flexible resistance
	Heating element power	1000 W
	Heating part size	L = 740 mm ; $\varnothing = 6.5 \text{ mm}$
	Thermoregulator (4) alimentation	220V
	Communication interface	RS485 / USB
	Communication protocol	MODBUS or ASCII
	Control	Regulation x1 + Measure x1
	Control device	Thermocouple K
Recommended max. temperature	T = 150°C in the enclosure	
<b>Gas Control (optional)</b>	Humidity controller (5)	Box with 2 mass flow controllers
	Gas delivery in the chamber	Inlet rods x2
<b>IT Control</b>	For motion control (6)	Yes (software)
	For temperature control (6)	Yes (software)
	For gas flow control	Optional (other software)
<b>Safety</b>	For electricity	Electrical cabinet (7)
	For fingers trapping	Infrared barriers (8)
<b>Other</b>	Substrate holder (9)	Adjustable jaw with springs
	Size / Material of enclosure (10)	210(L) x 57(l) x 73(H) mm / SS 316L
	PTFE tanks delivered x2 (11, 12)	$V_1 \approx 15 \text{ mL}$ ; $V_2 \approx 235 \text{ mL (max.)}$
	Substrate size max.	130(L) x 5(d) x 110(h) mm
	Size / Weight of dip-coater frame	960(L) x 490(d) x 850(h) mm / 60 kg

