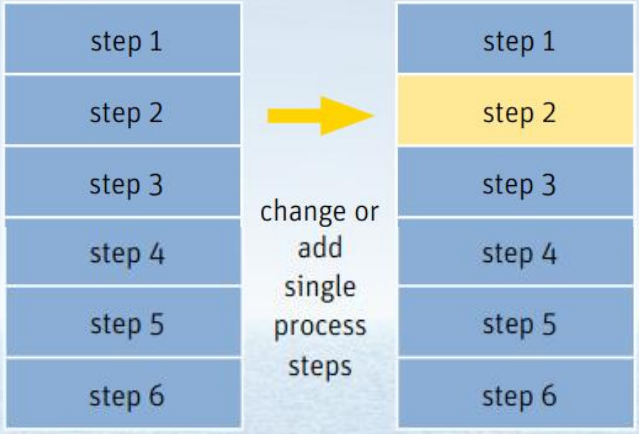
01 | Solar cell process

ISC International Solar Energy Research Center Konstanz

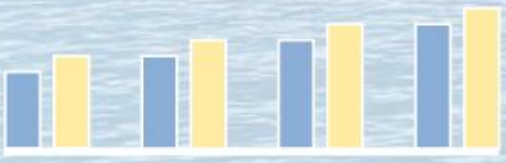
Use the ISC Konstanz solar cell processes

- to prove your concept
- to evaluate your product
- to convince your customer



Voc / Jsc / ... ISC standard

Voc / Jsc / ... with changed process



M1 to M4: different starting materials

Find more details about the ISC p-type- and n-type standard-processes on the back of the page.

ISC p-type standard (full Al rear):

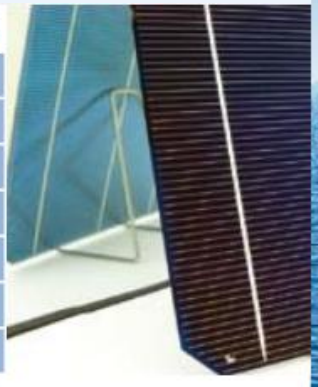
step 1: Isotexture or RENA monoTex®
step 2: $POCl_3$ diffusion (70 Ohm/sq)
step 3: PECVD SiN_x
step 4: Screen printing
step 5: Co-Firing
step 6: Laser edge isolation

Standard p-type solar cell results:

	mc	Cz
Jsc [mA/cm²]	36.0	38.0
Voc [mV]	634	649
FF [%]	79	79
Efficiency [%]	18.0	19.5

ISC n-type standard (bifacial-P BSF):

step 1: Saw damage etching
step 2: $POCl_3$ diffusion
step 3: Diffusion barrier
step 4: BBr_3 diffusion
step 4: PECVD SiN_x
step 5: Screen printing
step 6: Co-Firing



Standard n-type solar cell results:

	Cz
Jsc [mA/cm²]	39.5
Voc [mV]	657
FF [%]	79
Efficiency [%]	20.5

For additional information please contact:
eckard.wefringhaus@isc-konstanz.de

ISC International Solar Energy Research Center Konstanz
ISC Konstanz
Rudolf-Diesel-Str. 15
78467 Konstanz
Germany
Tel: +49-7531-36 18 3-0
Fax: +49-7531-36 18 3-11
sekretariat@isc-konstanz.de
www.isc-konstanz.de