

FLITE Material Sciences

making everyday materials extraordinary

Dan Cohen, CEO





FLITE introduces a radical new method to treat all industrial materials to prevent failure caused by ice, corrosion, biofilms or fouling using clean lasers instead of toxic coatings.



We will succeed by embedding this technology directly into our clients' manufacturing environment for long-term licensing fees and royalties.



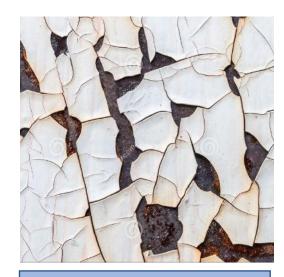
About FLITE Technology

Untreated Stainless Steel



This is the surface of stainless steel, magnified to show its surface texture.

Temporary Coatings

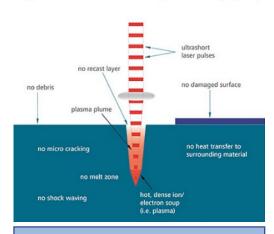


Coatings eventually peel, crack, pit, or delaminate from their surface.

Result: Loss, damage and outrageous costs.

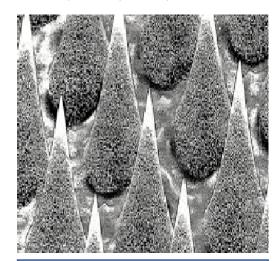
FLITE patented surface treatment

Application with ultra short pulse laser (e.g. fs)



We use fast energy pulses to sculpt a new surface that produces a specific effect. Clean, permanent and durable.

Functional Surface: Superhydrophobic

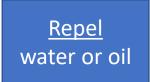


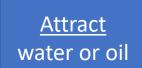
This surface, copied from a lotus leaf, repels water with the slightest push, vibration or tilt.

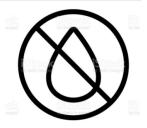


Functionalized Surfaces

FLITE's techniques have been applied successfully to virtually every solid material, and we are designing new textures for specific industrial problems.









Metals



Polymers



Glass



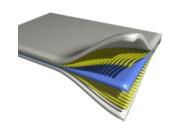
Semicon



Ceramics



Composites





FLITE's Key Differences

What we are *NOT*

A process that adds material to the surface.

A process that removes material from the surface.

An additive that changes material properties.

What we ARE

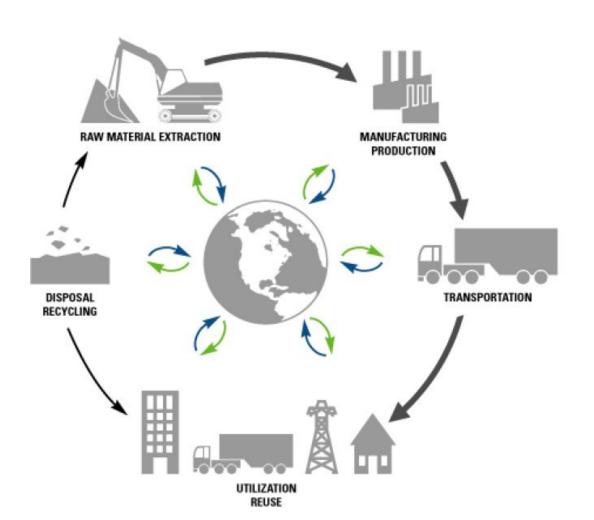
A treatment that goes where coatings can't.

Completely green.

A reason to redesign familiar products.



Defining Green

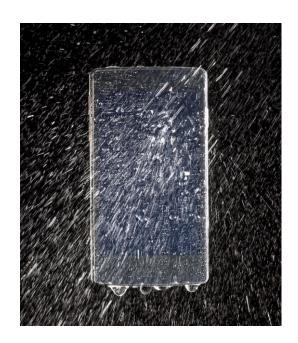


- No residue in soil, air, water
- No toxic vapors
- No significant waste heat
- No danger of flame or explosion
- No leaching into finished product
- No odors or loud noises
- Does not affect recycling
- Does not affect composting
- Consumes Electricity

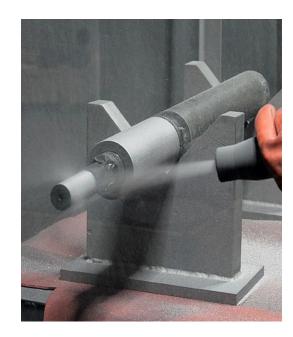


Durable and Scalable Results

FLITE's treatments do not weaken the product, according to early tests. We are scaling the technique to apply at speeds of $1m^2/m$ inute.



✓ Water jetting



✓ Sand blasting



✓ Abrasive scrubs



✓ Thermal cycling



Market Profile

Global Coatings and Paints (\$160B)

> Industrial and Protective (\$100B)

Functional Coatings (\$2B) (Superhydrophobic, Oleophobic)



















FLITE Material Sciences



Opportunity Catalog



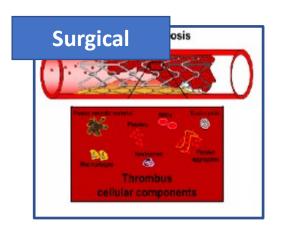










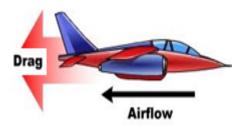






Market: Aerospace

Reduce Drag



Ice-free wings



Delay Corrosion



Longer lifecycle



Reduce paints



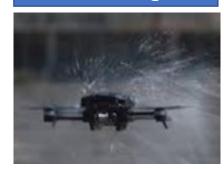
Clear Instruments



Less weight

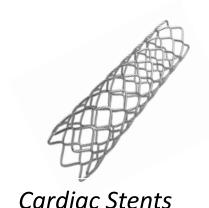


UAV wet flights





Market Profile: Medical Devices







Dental Implants

Surgical Tools



Joint Replacements



Continuous
Glucose
Monitors



Graft and Screws



FDA Warns About Deadly Device Coatings Problems

By Chris Newmarker
November 23, 2015 in Surface Treatment

Coating adhesion problems related to guidewires and other devices apparently aren't going away, if a Monday safety communication out of FDA is any indication.



Market Profile: Oil and Gas



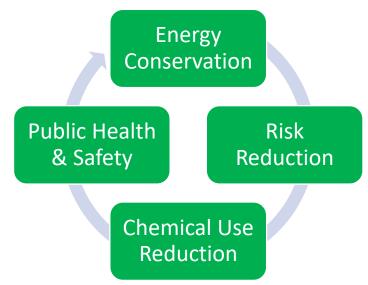
Pipe Corrosion



Scale Buildup



Biofilm Blockages

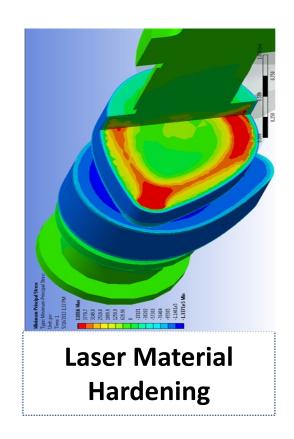




Integrations for Advanced Manufacturing

FLITE's is integrating its methods with other advanced laser techniques to offer complete manufacturing solutions

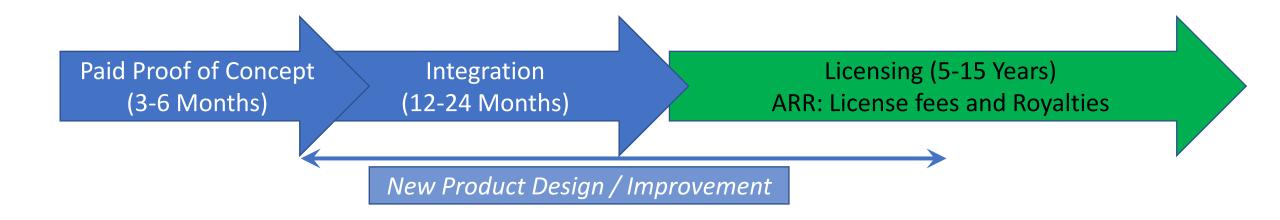








Sales and Growth Engine









JOULES ACCELERATOR











A Strong Beginning

Press Coverage



...+50 more in 6 languages



Technology licenses	4
Patents	8
Partner institutions	5



Winner, Startupalooza Pitch Contest

Semifinalist, US Army xTechSearch Prize

Winner, SPE ATCE Best in Show

2nd Place, Entrepreneurship World Cup

Winner, CCIA Cleantech Oil & Gas Challenge

Finalist, Vernadsky Challenge



A Promising Future

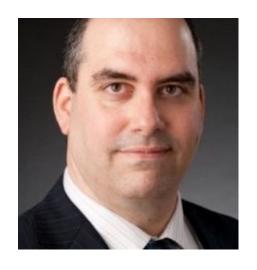


First Customers

- ✓ Durable Goods Co.
- ✓ Food and Beverage Co.
- ✓ Helicopter OEM
- ✓ Aluminum Processor
- ✓ US Air Force
- ✓ National Drone Company
- ✓ Aviation Research Co.
- ✓ International Oil & Gas Co.
- ✓ Surveillance Drone Co.
- ✓ Military Robotics Co.
- ✓ International Plastics Co.



FLITE's Top Team



President
28 years exp.
Innovation & R&D
CTO 5 times
Founder 3 times



Dr Ogan GurelChief ScienceOfficer33 years exp.MD (Neuro.), PhD



Tom Samek
VP Business
Development
35 years experience
in deeptech
industries



Christiana Winfrey
VP Finance &
Operations
15 years executive
experience in
growing startups



FLITE Numbers

FY 2021 Status		
Commercial pipeline	\$ 3.2 M	
Defense pipeline	\$ 2.6 M	
Nondilutive sources	\$ 2.5 M	
Burn Rate	< \$10k / month	
Capital raised	\$120,000	
Team size	4 f/t 7p/t	
Series A raise	\$ 5.0 M	

5-Year Outlook		
	Licenses	Revenue
Year 1	-	\$ 2.1 M
Year 2	3	\$ 5.1 M
Year 3	17	\$ 16.7 M
Year 4	31	\$ 33.3 M
Year 5	45	\$ 45.3 M
5-year projected revenue <i>per license</i>		\$ 5 M - \$15 M
Margins o	n licenses	80%+







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