

Personal Analyzer

B2C Life Science / Hardware Pre-Seed Stage Startup

next-generation affordable chemical-free analyzer for controlling medications & food at home, or anywhere else where using chemical reagents is unwanted or prohibited

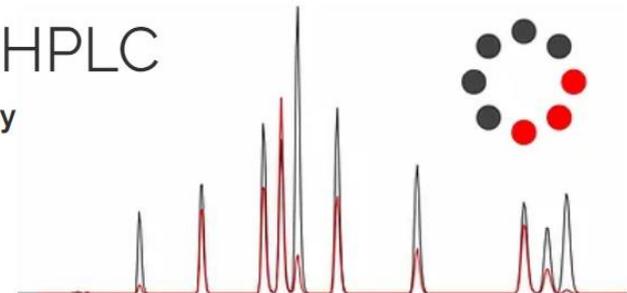
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Academy of **Contemporary** HPLC

Educational, Consulting & Startup HPLC Company

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1. Concept

Imagine that medications & healthcare products, food & drinks can be tested **easily, quickly, and by everyone**: from a kid at school to an astronaut on the space station.

We have developed the original technology of chemical analysis that requires only water to operate the analyzer. Such analyzer does not need certification, and can be used out of the lab – literally everywhere:

- in **high schools / colleges / universities** (as a life science edtech tool);
- in **pharma / biotech / food** industries (for chemical-free quality control);
- in **clinics, pharmacies** in developing countries (to detect fake medications);
- in **families** (as a personal device to control quality of food & medications);
- and even on **future space colonies** (as a chemical-free R&D instrument).

In terms of accuracy, ability to analyze real-life samples (matrix-compatibility), and throughput it can **outperform** many non-eco-friendly **professional devices**, being at the same time much cheaper and smaller.

2. **FIRST-IN-CATEGORY EDTECH TOOL** for **HIGH SCHOOLS, TECHNICAL UNIVERSITIES & COLLEGES**



Do you think the today's world needs more great specialists and leaders in **life sciences** and in **greentech**?

If yes, then we have a problem. It's pretty hard to convince a kid to get into the life sciences just by providing an edtech app. **It should be experienced**, and an edtech tool is far superior to any edtech app in terms of efficiency here.



To awake & direct kid's interest **the opportunity to experiment with a real-life, 'adult' high-tech** should be given to them. And here is enough space for the **eco-friendly Personal Analyzer edtech tool**. At school kids can analyze **soft drinks, juices, coffee & tea, milk products, food supplements**. At college / university students can analyze **real medications, drug substances, reaction mixtures and biotech cell culture media**.

Big pharma suffers from a shortage of **qualified** and at the same time **loyal specialists**. They could be advised to stick their logo on Personal Analyzer, put this edtech tool in schools & universities – and the professionals they need will be in line for them just in a few years.

3. Applications for **GREEN PHARMA** / **BIOTECH** & **SPACE**

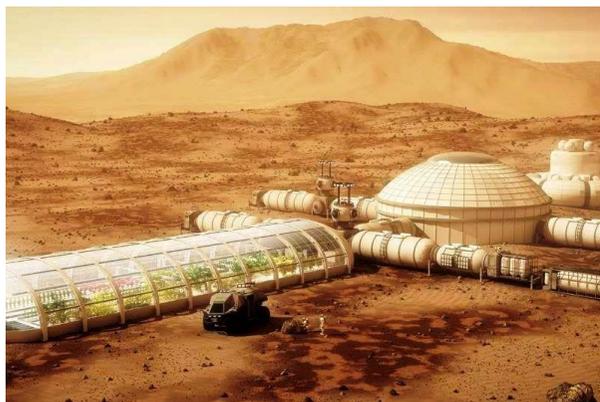


The World becomes more volatile; with a greater variety, the quality of products: raw materials, medicines, food - generally deteriorates, especially in developing countries, and the opportunity to **independently & quickly verify the quality** becomes more and more attractive.



The personal analyzer can find its application where the use of toxic chemical solvents is unacceptable due to the **strict environmental regulations**:

- in **clinics, pharmacies** (to detect fake medications);
- in small **food factories** that don't have a lab (to control quality of food & ingredients);
- in **pharma/biotech companies** that may be willing to implement green analytical technologies (for QA/QC purposes).



And icing on the cake: such eco-friendly analyzers of (bio)chemical processes could be implemented on **future space colonies** on Moon & Mars, where there will be no chemical solvents at all. And even – on **space stations**.

4. Applications for **ORGANIC LOVERS** & **LARGE ORGANIC RETAILERS**



Being a first-time dad, I used to analyze every med before giving it to my baby – because the product's label does not contain any information about **the quantity of artificial additives** that a product contains.

There are millions of **parents** that **have no way to control** what they give to their babies.



They need a kind of a simple device like Personal Analyzer for at home analysis of baby food & healthcare products: **juices, syrups, vitamin supplements, shampoos, etc.** – because harmful chemical additives can cause serious allergic reactions, especially in toddlers.

It can be also a solution for **large organic retailers** (like Whole Foods) and **mainstream grocers** who may be willing **to control the real level of artificial additives** in organic food and 'clean' medications.

5. A REVOLUTIONARY **NEXT-GENERATION CHEMICAL-FREE ANALYZER**

We are not the first who develop analyzers. Our core difference is that we want to take this purely lab-oriented tech **out of the lab**.

Thus, we are developing something new – the **next-generation analytical device*** that will be **eco-friendly**, **affordable for mass users** & supplied with a number of tailored **applications**** (**physical product ** virtual products*)

Today's lab instrument called HPLC is inapplicable for mass application, because:

- A.** hardware itself is too sophisticated & expensive,
- B.** analyzing real-life samples is tricky & requires sample clean-up procedures,
- C.** no one has developed interesting applications for mass users,
- D.** the instrument needs literally tons of toxic solvents for its operation.

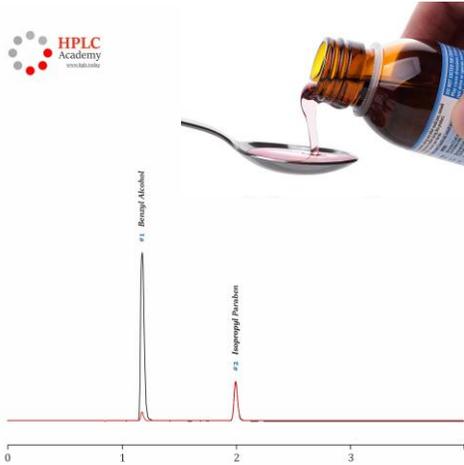
BUT WE HAVE ALREADY SOLVED PROBLEMS A, B, C

We are addressing D, and **we have solved D for a number of applications**, mainly for the ones related to using Personal Analyzer in universities and schools. We have very good prospects to go further in this direction.

6. WHAT'S IN THE BOX?

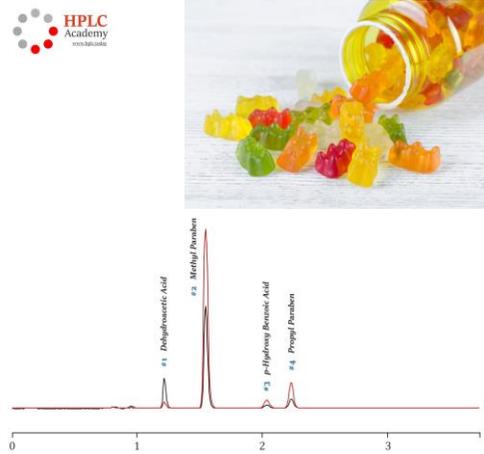
Here you can see the app that is used to determine nine artificial additives in baby healthcare products.

One general application (below) is used to analyze **multiple** samples.



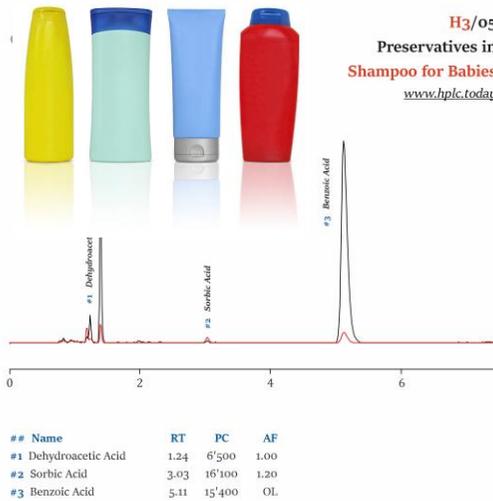
BABY VITAMIN D

FOUND: benzyl alcohol, isopropyl paraben



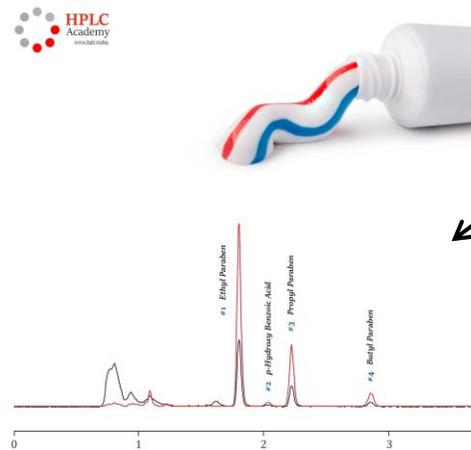
BABY IRON SUPPLEMENT

FOUND: dehydroacetic acid, methyl + propyl parabens, hydroxybenzoic acid



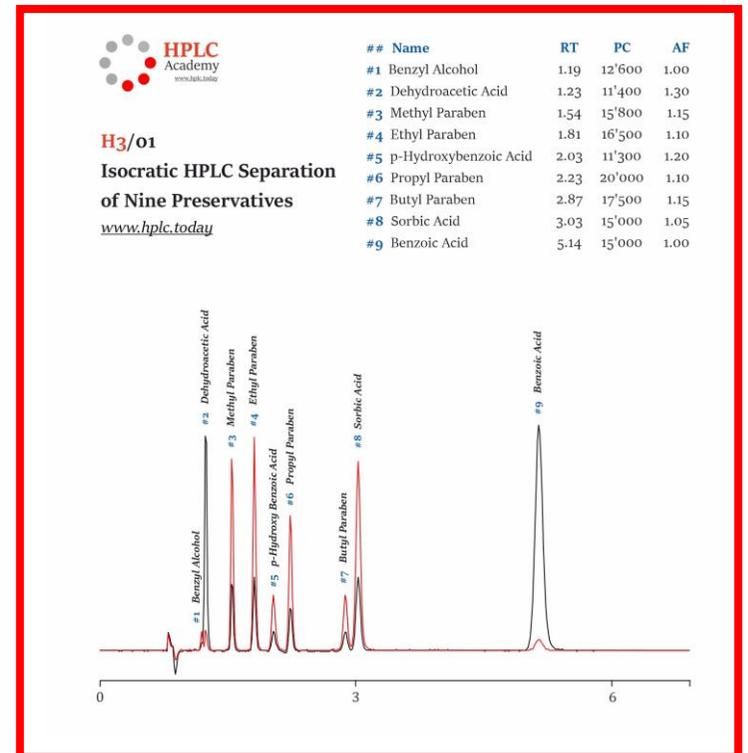
BABY SHAMPOO

FOUND: dehydroacetic acid, benzoic acid, sorbic acid



TOOTHPASTE FOR KIDS

FOUND: ethyl + propyl + butyl parabens, hydroxybenzoic acid



GENERAL APPLICATION FOR ADDITIVES

* DANGEROUS XENOBIOTIC SUBSTANCES
*MODERATELY DANGEROUS *NOT DANGEROUS

7. MARKET OPPORTUNITY

University Lab will be the first model:

- 1.0* / 2.0** years (* prototype → feedback → ** beta-version)
- **the potential market: any university** that teaches chemistry / pharmacy / biotech / medicine

School Lab will go next: 1.0* /2.5** years; **the potential market: any high school, rich families** having several kids

Pharma Lab is the possible upgrade of **UniversityLab**; **the potential market: pharmacies, small clinics, small food companies, pharma/biotech startups.**

Family Lab **the potential market: rich families** with newborns, **organic retailers** and **mainstream grocers**

Space Lab is the possible upgrade of **PharmaLab**.

8. POINTS OF GROWTH

Below is a list of organizations that may be interested in the project, and thus can **place large one-time (pre)orders** / or provide **significant grants** / or give valuable **feedback**:

- ✓ **education foundations** & **philanthropists** (like *Bill & Melinda Gates*),
- ✓ **NGOs** aimed in promotion of **going green** / sustainable future initiatives,
- ✓ **top pharma/biotech** companies (like *Sanofi, Novartis*),
- ✓ **top food** companies (like *Coca-Cola*),
- ✓ largest **organic retailers** (like *Whole Foods*) & mainstream grocers (like *Walmart*),
- ✓ **space companies** (like *Virgin Galactic, SpaceX, Blue Origin*);
- ✓ top **universities, colleges & schools**,
- ✓ **private** universities, colleges & schools.

9. COMPETITION

This product **truly never existed**. It was not developed yet, because **necessary technologies appeared just 2-3 years ago**, and they are still very rarely used: main sales drivers, pharma & food industries, are **extremely conservative** and use 20-40 year-old methods.

Besides, business model of large producing companies (possible future competitors) like **Thermo, Agilent, Shimadzu, and Waters** is based on sales of sophisticated & **expensive professional equipment** – obviously not affordable analyzers. Nevertheless, we assume that copycat competitors **will definitely appear** as soon as the product starts gaining popularity.

10. POSSIBLE EXIT SCENARIOS

- 1. (Excellent scenario)** Sales are growing fast, competition is negligible: **No exit**.
- 2. (Tolerable scenario)** Sales are growing slow, competition is tolerable: **Acquisition** by a large pharma or food producing company interested in in-house implementation of the developed technologies.
- 3. (Bad scenario)** Sales are not growing, competition is strong: **Acquisition** by an equipment-producing company like Thermo, Agilent, Waters, etc. interested in the developed technologies or in elimination of the competitor.

11. About us

14 years of entrepreneurship & **25 years** in R&D – that is our general background.

For 14 years we have been entrepreneurs providing cutting-edge technologies of chemical analysis for local divisions of pharma/biotech & food companies, training & consulting their R&D analytical units.

In a harsh competition we spent years to perfect technologies we used to sell and teach. In HPLC we have developed a series of **disruptive industry-specific approaches** as well as **unparalleled courses for R&D analytical departments of big pharma/biotech & food companies.**

Such well-known companies as **Novartis, Sanofi, MSD, Danone, Dohler** were among our customers.

More than **500+** R&D professionals from **70+ pharmaceutical/biotech companies** have attended our courses on HPLC assay development.

Konstantin Sychev has earned his Ph.D. in 2004 working with Vadim A. Davankov - the world-renowned HPLC scientist, the inventor of Chiral HPLC.



Konstantin Sychev: Founder. **Credo:** Insight-based innovations. **Skills:** Expert in HPLC technology development & coaching. Business development. Author of courses & 4 books on HPLC. **Background:** 25 years in pharma & food industry. 14 years of entrepreneurship. **LinkedIn:** <https://www.linkedin.com/in/konstantin-sychev-b3758577/>



Evgenia Okunsky: Co-Founder. **Credo:** Feedback is everything. **Skills:** Lab management. Quality management. **Background:** 10 years in pharma industry.

- We are very realistic, keeping both feet on the ground, and very focused.
- We have an experience of building a non-standard business from the ground up & maintaining it for 14 years. We are flexible & adaptable to market needs.
- In our specific field we are super professionals teaching other professionals.
- We have a deep insight into industry & vision of the future technology.
- We are versatile researches in any field, be it life science or business. We are exceptionally strong in formulating, prioritizing and checking multiple hypotheses.
- We are not ego-centric; we want to build the business with our partners.

HPLC

 75 endorsements

Chromatography

 Endorsed by Anatoli Ch
 63 endorsements

Analytical Chemistry

 Endorsed by Anatoli Ch
 58 endorsements

R&D

 33 endorsements

Chemistry

 32 endorsements

Life Sciences

 30 endorsements

12. Summary / Contacts

1. **Personal** Analyzer: B2C Life Science / Hardware Pre-Seed Stage Startup
2. We are developing a next-generation chemical-free analyzer: eco-friendly, versatile, affordable, simple in operation, smaller and cheaper than professional instruments – but it outperforms many professional instruments in terms of accuracy and throughput.
3. Can be used as a first-in-category EdTech Tool for high schools, technical colleges and universities.
4. Can be upgraded to fit a number of different pharma/biotech & food & even space applications
5. We are at the prototyping stage.

Contacts

Do you want to know a bit more? Please do not hesitate to contact us – we will be glad to talk.

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