My name is Steven Siegel and I work with a well-established EU chemical house..

There is an intense collaboration between us.

We introduced our "partner" to the world of bookbinding who started to read publications from renowned people like Betty Haines; Roy Thomson and Dr. René Larsen in relation with the STEP, CRAFT and ENVIRONMENT projects. It was from this point that we made the request to develop a (calf) leather which would be sulfur free and could be Archival as well.

From the literature one can understand that something important happened in leather making between 1830 – 1850 which resulted in a dramatic reduction in the life span of binding leathers.
Introduction of modern tanning methods and Na2S and sulfuric acid and the atmospheric conditions (SO2) degenerated leathers at an alarming speed. This in contrast of very much older leathers which still today exist and are not deteriorated (too much).

So, we initiated a project to create a leather that would:
- Be sulfur free, using a beamhouse system based on hair removal and not destruction
- 100% vegetable (preferable pyrogallic tannins) tanned without usage of any mineral and synthetic tanning agents and no sulphited or sulphated or sulfonated oils
- Meet the organo leptic characteristics including gold lettering
- Pass the ageing tests ecc
- Be Archival as well
- Be quite sustainable

At this point I can inform you that we have made various productions and "tried out" the market of (USA) bookbinders. The feedback received till now is very encouraging and quite a few have indicated that this "New Calf" is their standard from now on. The standard calf till now used by many is alum based which hampers the organo leptic properties. So, there is a need for a different approach in creating this leather.

For more than 1.5 years we are working & developing "Sulfur Free Full Vegetable Tanned Sustainable & Archival Calf Skin Leather for (book) binding & restoration".

We do have very positive feedback from the binding community in the USA and UK. Now we wish to introduce this very special developed leather also to various European, UK, and US entities., We are trying to create awareness to (museum) conservators informed and alerted that such material is available soon. At present we are preparing leathers to be tested and certified through FILK in Freiberg (De).

What have we done so far?

- Quantitative analysis for Sulfur (after solvent extraction on dried leather, sample was concentrated to dryness and then recovered precipitate was oxidized. The result, expressed as sulfur, is obtained by ion chromatography analysis of total sulfates). We found 58 Mg/Kg. And that is the same as "0" because detection limit is 50 Mg/Kg. Take into account the "Ground noise interference" as well.

We also have carried out following physical tests:
- Measurement of tensile strength and percentage elongation - IUP6
- Measurement of tear load – IUP8
- Measurement of distension and strength of grain by the ball burst test – IUP9
- Determination of flex resistance - IUP20
- Tropical test (internal) at 50°C and 90% RH for 15 days. No light source and no gasses (NO2 and SO2)

By studying the various EU projects we ran into the name of Dr. René Larsen who is (certainly) retired. He was briefed about our endeavors. He immediately offered his immense expertise to assist and guide us especially in relation with setting up the test requirements for FILK Freiberg. We are in daily contact about this very interesting development. Two weeks ago we finished the last small production. If you wish to receive a sample pls. let me know and also how big it should be.

For your information we use (Central) European Calf skins with a salted weight from 5 – 8 kgs. The final leather is about 13 – 15 sqrft and has a thickness of 0,8 – 0,9 mm. It is undyed as the binders dye it themselves. Because of the specific needs and characteristics it is quite expensive to produce but till now binders are happily accepting this cost as this leather meets (finally?) their binding requirements. You will also notice a particular pleasant smell of the leather.

We are also in touch with FILK Freiberg – Dr. Anke Mondschein We will ask FILK to carry out various tests to have a credible certification to show to the (binding) community. We are also preparing a paper about this process and method which we will publish once we have all tests done by FILK. We will share that with you as well.

I also would like to have your advise on how we could "spread the message" that such leather is now available for conservation and restoration.

Samples are available to the community free of charge or sample skins are available for purchase at 0.7 or 0.9 mm for evaluation.

Cordially,
Steven Siegel
www.siegelleather.com
sales@siegelleather.com
001.336.293.7624