

三维化学 Sunway Chemical (002469 CH)

首次覆盖：氢能+光热储能星辰大海，稀土顺丁橡胶国产替代大有可为

Hydrogen Energy and Solar Thermal Energy Having Great Potential, while Domestically Produced Substitutes for Rare Earth Butadiene Rubber are Promising: Initiation

观点聚焦 Investment Focus

首次覆盖优于大市 Initiate with OUTPERFORM

评级	优于大市 OUTPERFORM
现价	Rmb7.15
目标价	Rmb11.95
市值	Rmb4.64bn / US\$0.68bn
日交易额(3个月均值)	US\$16.02mn
发行股票数目	648.86mn
自由流通股(%)	100%
1年股价最高最低值	Rmb10.62-Rmb4.83

注：现价 Rmb7.15 为 2023 年 4 月 17 日收盘价



资料来源: Factset

	1mth	3mth	12mth
绝对值	16.3%	14.6%	30.8%
绝对值(美元)	16.3%	12.8%	21.2%
相对 MSCI China	39.9%	39.9%	65.5%

(¥ mn)	Dec-22A	Dec-23E	Dec-24E	Dec-25E
营业收入	2,610	3,201	4,006	5,059
(+/-)	-1%	23%	25%	26%
净利润	274	426	541	708
(+/-)	-27%	56%	27%	31%
全面摊薄 EPS (¥)	0.42	0.66	0.83	1.09
毛利率	19.6%	22.9%	23.2%	23.7%
净资产收益率	10.5%	14.1%	15.2%	16.6%
市盈率	17	11	9	7

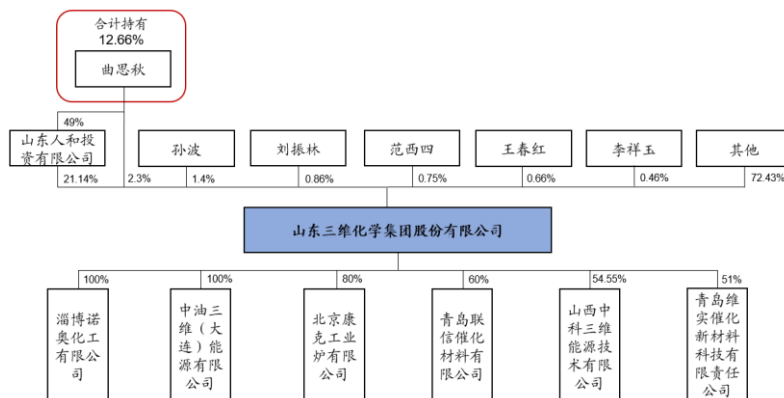
资料来源: 公司信息, HTI

(Please see APPENDIX 1 for English summary)

- “科技+工程+实业”联动发展，氢能+储能+稀土橡胶三大新星。** 三维化学最初是由设计院（央企）改制设立的工程公司（民营），后于 2020 年收购诺奥化工，步入化工领域（醇醛酯类、残液加工类等）。2022 年，公司工程业务利润总额 1.26 亿元，yoy+7.59%；化工业务利润总额 1.67 亿元，yoy-52.39%（主要因 2022 年经济下行，公司销售的化工品受供需影响降价，但 2022 年能源价格上升，成本上升。）；催化剂业务利润总额 0.34 亿元，yoy+7.91%。未来，公司在氢能、光热（主要做储热系统）、稀土顺丁橡胶业务上可期。
- 工业副产氢回收+电解 H₂S 制氢，切入氢能赛道。** 发改委和国家能源局发布的《氢能产业中长期规划（2021-2035 年）》，2025 年发展目标里提及初步建立以工业副产氢和可再生能源制氢就近利用为主的氢能供应体系。据头豹研究院，2020 年中国副产氢市场规模 552 亿元，预计 2025 年 1258 亿元。工业副产氢价格低，焦炉煤气副产氢仅 6-12 元/kg。据我们测算，若电价为 0.2 元/度，绿氢成本约为 15 元/kg。且工业副产氢整体上靠近负荷中心，储运较为方便。公司承接中石化青岛炼化氢能项目（二期建成后可满足青岛市 25 座加氢站氢气需求）、格尔氢能、齐鲁氢能一期等设计或总包工作。公司携手大连化物所，共研电解 H₂S 制氢，打开含硫尾气治理蓝海市场。
- 光热+工业热需求，带动熔盐储能发展。** 根据《国家能源局综合司关于推动光热发电规模化发展有关事项的通知》，力争“十四五”期间，全国光热发电每年新增开工 3GW。根据《中国太阳能热发电行业蓝皮书 2022》，储热系统占比 17%。假设 1GW 光热总投资 150 亿，则每年带动 25.5 亿储热系统需求。2022 年中国光热装机规模仅 588MW，新增装机 50MW，行业迎来高速发展期。三维化学 2016 年承接中广核德令哈 50MW 光热储热系统，我们认为，随着未来光热行业发展，公司的熔盐储热系统业务发展快。
- 稀土顺丁橡胶国产替代，EPC+催化剂需求释放。** 稀土 BR（顺丁橡胶）技术受国外封锁，依赖国外进口，但镍系 BR 国内产能过剩。根据《我国顺丁橡胶的发展概述》，我国十四五期间，将有 35 万吨新建稀土 BR 产能。同时，镍系 BR 产线改造成稀土系动力足。三维化学掌握年产 5 万吨稀土 BR 工艺及催化剂配制生产技术。三维化学曾为四川石化改造 5 万吨/年镍系稀土 BR，可与镍系切换，已生产合格产品。
- 盈利预测与评级。** 我们预计公司 23-25 年归母净利润分别为 4.26/5.41/7.08 亿元，对应 EPS 分别为 0.66/0.83/1.09 元。其中，23 年公司化工和工程部分净利分别为 2.89 和 1.36 亿元。23 年化工和工程部分可比公司 PE 分别为 13 和 24 倍。我们给予公司 23 年化工和工程部分 PE 为 15 和 25 倍，对应 2023 年目标价 11.95 元，首次覆盖给予“优于大市”评级。
- 风险提示。** 氢能、熔盐储能、稀土顺丁橡胶项目不及预期，化工项目进展不及预期。

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图1 公司股权结构图



资料来源：WIND，公司公告，海通国际

● 分项业务预测主要假设:

(1) 残液加工类和醇醛酯类：2022 年经济下行，公司销售的化工品受供需影响降价，但 2022 年能源价格上升，成本上升。我们认为，2023 年残液加工类和醇醛酯类的收入和毛利率或恢复。我们预计 2023-2025 年残液加工类的收入增长分别为 25%，12%和 10%，预计 2023-2025 年醇醛酯类的收入增长分别为 15%，12%和 10%。

(2) 工程总承包：我们预计 2023-2025 年原工程总承包（除氢能、熔盐储能和稀土顺丁橡胶 EPC 外）保持每年 10%的收入增长，叠加氢能、熔盐储能和稀土顺丁橡胶 EPC 的持续发力，总工程总承包业务 2023-2025 年的收入增长分别为 47.19%、56.8%和 51.74%。

(3) 工程设计和收入：我们预计 2023-2025 年工程设计每年保持 5%的收入增长，预计其他收入每年保持 10%的增长。

(4) 产品销售：我们预计原产品销售（除稀土顺丁橡胶催化剂外）每年保持 10%收入增长，叠加稀土顺丁橡胶催化剂的销售助力，总产品销售 2023-2025 年收入增长分别为 10%、36.77%和 47.18%。

表 1 分部盈利预测

		2021	2022	2023E	2024E	2025E
残液加工类	收入 (百万人民币)	541.94	389.78	487.22	545.69	600.26
	yoy	1236.48%	-28.08%	25.00%	12.00%	10.00%
	成本 (百万人民币)	352.15	295.43	341.06	381.98	420.18
	毛利 (百万人民币)	189.79	94.35	146.17	163.71	180.08
	毛利率	35.02%	24.21%	30.00%	30.00%	30.00%
醇醛酯类	收入 (百万人民币)	1,427.10	1,337.16	1,537.73	1,722.26	1,894.49
	yoy	1122.83%	-6.30%	15.00%	12.00%	10.00%
	成本 (百万人民币)	1,139.54	1,158.22	1,260.94	1,412.26	1,553.48
	毛利 (百万人民币)	287.56	178.94	276.79	310.01	341.01
	毛利率	20.15%	13.38%	18.00%	18.00%	18.00%
工程总承包	收入 (百万人民币)	403.86	564.65	831.12	1,303.23	1,977.55
	yoy	43.38%	39.81%	47.19%	56.80%	51.74%
	成本 (百万人民币)	309.95	443.38	645.20	1,017.87	1,551.90
	毛利 (百万人民币)	93.91	121.28	185.92	285.36	425.65
	毛利率	23.25%	21.48%	22.37%	21.90%	21.52%
其中: 氢能工程	收入 (百万人民币)			160.00	320.00	576.00
	成本 (百万人民币)			120.00	246.40	449.28
	毛利 (百万人民币)			40.00	73.60	126.72
	毛利率			25.00%	23.00%	22.00%
工程设计	收入 (百万人民币)	104.43	96.21	101.02	106.07	111.38
	yoy	-6.59%	-7.87%	5.00%	5.00%	5.00%
	成本 (百万人民币)	52.47	49.21	51.67	54.26	56.97
	毛利 (百万人民币)	51.96	47.00	49.35	51.82	54.41
	毛利率	49.75%	48.85%	48.85%	48.85%	48.85%
产品销售	收入 (百万人民币)	143.89	203.78	224.16	306.58	451.23
	yoy	22.97%	41.62%	10.00%	36.77%	47.18%
	成本 (百万人民币)	94.67	143.73	156.91	196.60	261.86
	毛利 (百万人民币)	49.22	60.05	67.25	109.97	189.37
	毛利率	34.20%	29.47%	30.00%	35.87%	41.97%
其他收入	收入 (百万人民币)	10.24	18.27	20.10	22.11	24.32
	yoy	24.53%	78.43%	10.00%	10.00%	10.00%
	成本 (百万人民币)	4.93	9.22	11.05	12.16	13.37
	毛利 (百万人民币)	5.31	9.05	9.04	9.95	10.94
	毛利率	51.87%	49.51%	45.00%	45.00%	45.00%
总计	收入 (百万人民币)	2,631.47	2,609.85	3,201.35	4,005.94	5,059.23
	成本 (百万人民币)	1,953.72	2,099.18	2,466.84	3,075.13	3,857.77
	毛利 (百万人民币)	677.75	510.67	734.52	930.81	1,201.46
	毛利率	25.76%	19.57%	22.94%	23.24%	23.75%

资料来源: wind, 公司年报, 海通国际

表 2 可比公司估值表

代码	简称	总市值 (亿元)	PE (倍)	
			2023E	2024E
化工类				
600160.SH	巨化股份	495	16.92	13.31
002221.SZ	东华能源	145	10.83	6.28
600426.SH	华鲁恒升	723	11.42	9.29
	均值		13.06	9.63
工程类				
002534.SZ	西子洁能	129	28.32	18.24
002140.SZ	东华科技	74	21.59	17.70
601226.SH	华电重工	95	21.73	16.45
	均值		23.88	17.47

注：收盘价为 2023 年 4 月 17 日价格，EPS 为 wind 一致预期
资料来源：wind，海通国际

财务报表分析和预测

主要财务指标	2022	2023E	2024E	2025E	利润表 (百万元)	2022	2023E	2024E	2025E
每股指标 (元)					营业总收入	2610	3201	4006	5059
每股收益	0.42	0.66	0.83	1.09	营业成本	2099	2467	3075	3858
每股净资产	4.00	4.66	5.49	6.58	毛利率%	19.6%	22.9%	23.2%	23.7%
每股经营现金流	0.79	0.29	0.98	0.62	营业税金及附加	12	15	18	23
每股股利	0.25	0.00	0.00	0.00	营业税金率%	0.5%	0.5%	0.5%	0.5%
价值评估 (倍)					营业费用	17	21	26	33
P/E	16.95	10.89	8.57	6.55	营业费用率%	0.6%	0.6%	0.6%	0.6%
P/B	1.79	1.54	1.30	1.09	管理费用	102	125	157	198
P/S	1.78	1.45	1.16	0.92	管理费用率%	3.9%	3.9%	3.9%	3.9%
EV/EBITDA	7.39	6.65	4.62	3.45	EBIT	296	461	588	768
股息率%	3.5%	0.0%	0.0%	0.0%	财务费用	-13	-13	-14	-21
盈利能力指标 (%)					财务费用率%	-0.5%	-0.4%	-0.4%	-0.4%
毛利率	19.6%	22.9%	23.2%	23.7%	资产减值损失	-7	0	0	0
净利润率	10.5%	13.3%	13.5%	14.0%	投资收益	15	19	23	29
净资产收益率	10.5%	14.1%	15.2%	16.6%	营业利润	317	492	625	818
资产回报率	8.2%	11.0%	11.8%	12.9%	营业外收支	-1	0	0	0
投资回报率	9.3%	12.5%	13.6%	15.0%	利润总额	316	492	625	818
盈利增长 (%)					EBITDA	383	539	681	881
营业收入增长率	-0.8%	22.7%	25.1%	26.3%	所得税	38	59	75	98
EBIT 增长率	-29.4%	55.7%	27.7%	30.7%	有效所得税率%	12.0%	12.0%	12.0%	12.0%
净利润增长率	-27.5%	55.6%	27.1%	30.9%	少数股东损益	5	7	9	12
偿债能力指标					归属母公司所有者净利润	274	426	541	708
资产负债率	18.8%	19.0%	19.3%	19.6%	资产负债表 (百万元)	2022	2023E	2024E	2025E
流动比率	4.61	4.60	4.46	4.30	货币资金	1075	1154	1590	1695
速动比率	3.38	3.48	3.35	3.26	应收账款及应收票据	243	544	441	804
现金比率	2.06	1.83	2.05	1.75	存货	179	195	271	314
经营效率指标					其它流动资产	902	1002	1161	1352
应收账款周转天数	43.74	43.74	43.74	43.74	流动资产合计	2399	2896	3463	4165
存货周转天数	27.29	27.29	27.29	27.29	长期股权投资	1	1	1	1
总资产周转率	0.79	0.89	0.95	1.00	固定资产	419	485	631	856
固定资产周转率	5.85	7.09	7.18	6.81	在建工程	45	33	26	21
					无形资产	107	108	109	110
					非流动资产合计	947	992	1123	1334
现金流量表 (百万元)	2022	2023E	2024E	2025E	资产总计	3346	3888	4585	5499
净利润	274	426	541	708	短期借款	0	0	0	0
少数股东损益	5	7	9	12	应付票据及应付账款	305	381	474	599
非现金支出	86	78	93	112	预收账款	0	0	0	0
非经营收益	-10	-15	-20	-26	其它流动负债	216	249	302	371
营运资金变动	156	-309	15	-404	流动负债合计	521	630	777	970
经营活动现金流	511	187	639	403	长期借款	0	0	0	0
资产	-70	-123	-223	-323	其它长期负债	109	109	109	109
投资	-609	0	0	0	非流动负债合计	109	109	109	109
其他	8	19	23	29	负债总计	630	739	886	1079
投资活动现金流	-672	-105	-200	-294	实收资本	649	649	649	649
债权募资	0	0	0	0	归属于母公司所有者权益	2595	3021	3562	4271
股权募资	0	0	0	0	少数股东权益	121	128	137	149
其他	-186	-3	-3	-3	负债和所有者权益合计	3346	3888	4585	5499
融资活动现金流	-186	-3	-3	-3					
现金净流量	-347	79	435	106					

备注: (1) 表中计算估值指标的收盘价日期为 4 月 17 日; (2) 以上各表均为简表
资料来源: 公司年报 (2022), 海通国际

APPENDIX 1**Summary**

The coordinated development of technology, engineering and industry has given rise to three new stars in hydrogen energy, energy storage, and rare earth rubber. 3D Chemical was originally a state-owned design institute that was later restructured into a private engineering company. In 2020, the company acquired Nuocaohua Chemical and entered the chemical industry, focusing on alcohol, aldehyde, ester, and waste processing. In 2022, the company's total profit from engineering business was 126 million yuan, up 7.59% YoY; total profit from chemical business was 167 million yuan, down 52.39% YoY due to the economic downturn, which affected the supply and demand of the company's chemical products leading to lower prices, while energy prices increased, causing cost to rise. The total profit from catalyst business was 34 million yuan, up 7.91% YoY. In the future, the company's prospects look promising in the hydrogen energy, thermal storage (mainly in the field of thermal storage systems), and rare earth nitrile rubber businesses.

The company is entering the hydrogen energy market through industrial byproduct hydrogen recovery and electrolytic H₂S hydrogen production. The National Development and Reform Commission and the National Energy Administration's "Medium- and Long-Term Development Plan for the Hydrogen Energy Industry (2021-2035)" sets out the goal of establishing a hydrogen supply system based primarily on the near-use of industrial byproduct hydrogen and renewable energy hydrogen production by 2025. According to TouBao Research Institute, the scale of China's byproduct hydrogen market was 55.2 billion yuan in 2020 and is expected to reach 125.8 billion yuan in 2025. Industrial byproduct hydrogen has a low cost, with coke oven gas byproduct hydrogen costing only 6-12 yuan/kg. We estimate that the cost of green hydrogen is about 15 yuan/kg if the electricity price is 0.2 yuan/kWh. In addition, industrial byproduct hydrogen is generally closer to the load center and easier to store and transport. The company has undertaken design or general contracting work for projects such as Sinopec Qingdao Refining and Chemical Hydrogen Energy Project (which can meet the hydrogen demand of 25 hydrogen refueling stations in Qingdao after the completion of Phase II), Geer Hydrogen Energy, and Qilu Hydrogen Energy Phase I. The company is also collaborating with Dalian Institute of Chemical Physics to research the electrolytic production of hydrogen from H₂S, opening up a blue ocean market for sulfur-containing exhaust gas treatment.

The development of molten salt energy storage is being driven by both solar thermal and industrial heat demand. According to the notice from the Comprehensive Department of the National Energy Administration on promoting the scale development of solar thermal power generation, the goal is to add 3 GW of new solar thermal power generation capacity each year during the 14th Five-Year Plan period. According to the 2022 Blue Book of China's Solar Thermal Power Generation Industry, the proportion of thermal storage systems accounts for 17%. Assuming a total investment of 15 billion yuan for 1 GW of solar thermal power generation, this will drive demand for thermal storage systems of 2.55 billion yuan per year. In 2022, China's solar thermal installed capacity was only 588 MW, with an additional 50 MW installed, and the industry is entering a period of rapid development. In 2016, 3D Chemical undertook the 50 MW solar thermal molten salt energy storage system project for China General Nuclear Power Corporation in Delingha. We believe that as the solar thermal industry develops in the future, the company's molten salt energy storage system business will grow rapidly.

Profit forecast and rating: We expect the company's net profit attributable to the parent company to be 426 million yuan, 541 million yuan, and 708 million yuan in 2023, 2024, and 2025, respectively, with corresponding EPS of 0.66 yuan, 0.83 yuan, and 1.09 yuan. Among them, the net profit of the chemical and engineering divisions in 2023 is expected to be 289 million yuan and 136 million yuan, respectively. The comparable PEs of the chemical and engineering divisions of comparable companies in 2023 are 13 times and 24 times, respectively. We give the company a PE of 15 times and 25 times for the chemical and engineering divisions in 2023, corresponding to a target price of 11.95 yuan, and initiate coverage with a rating of "Outperform".

Risks: Projects in hydrogen energy, molten salt energy storage, and rare earth nitrile rubber may not meet expectations, and progress in chemical projects may not meet expectations.

附录 APPENDIX

重要信息披露

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弱于大市, 未来 12-18 个月内预期相对基准指数跌幅在 10%以上, 基准定义如下

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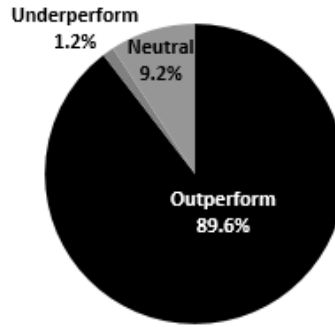
Neutral: The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

Underperform: The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

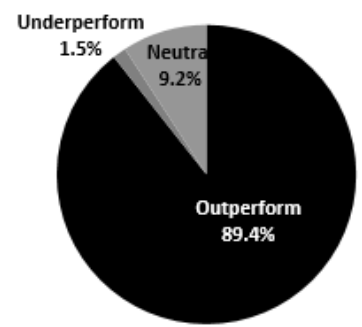
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评级分布 Rating Distribution

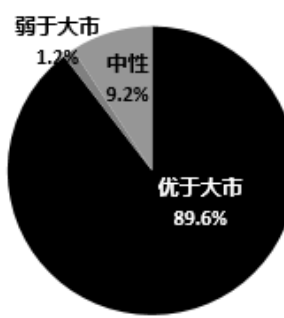
Most Recent Full Quarter



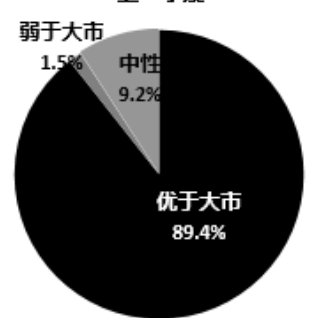
Prior Full Quarter



最新季度



上一季度



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	优于大市	中性 (持有)	弱于大市
海通国际股票研究覆盖率	89.6%	9.2%	1.2%
投资银行客户*	5.2%	6.4%	9.5%

*在每个评级类别里投资银行客户所占的百分比。

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中性, 未来 12-18 个月内预期相对基准指数变化不大, 基准定义如下。根据 FINRA/NYSE 的评级分布规则, 我们会将中性评级划入持有这一类别。

卖出, 未来 12-18 个月内预期相对基准指数跌幅在 10%以上, 基准定义如下

各地股票基准指数: 日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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IB clients*	5.2%	6.4%	9.5%

*Percentage of investment banking clients in each rating category.

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SELL: The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

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